ART
OF
GARDENING

Alex^r Boswel
Ed^r 1736

By John Worlidge

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Sir Henry Bulwer.

Systema Horti-Culturæ

Or

The Art of Gardening

By J. W.

Gent.

Printed for T. Burrell And W. Hensman
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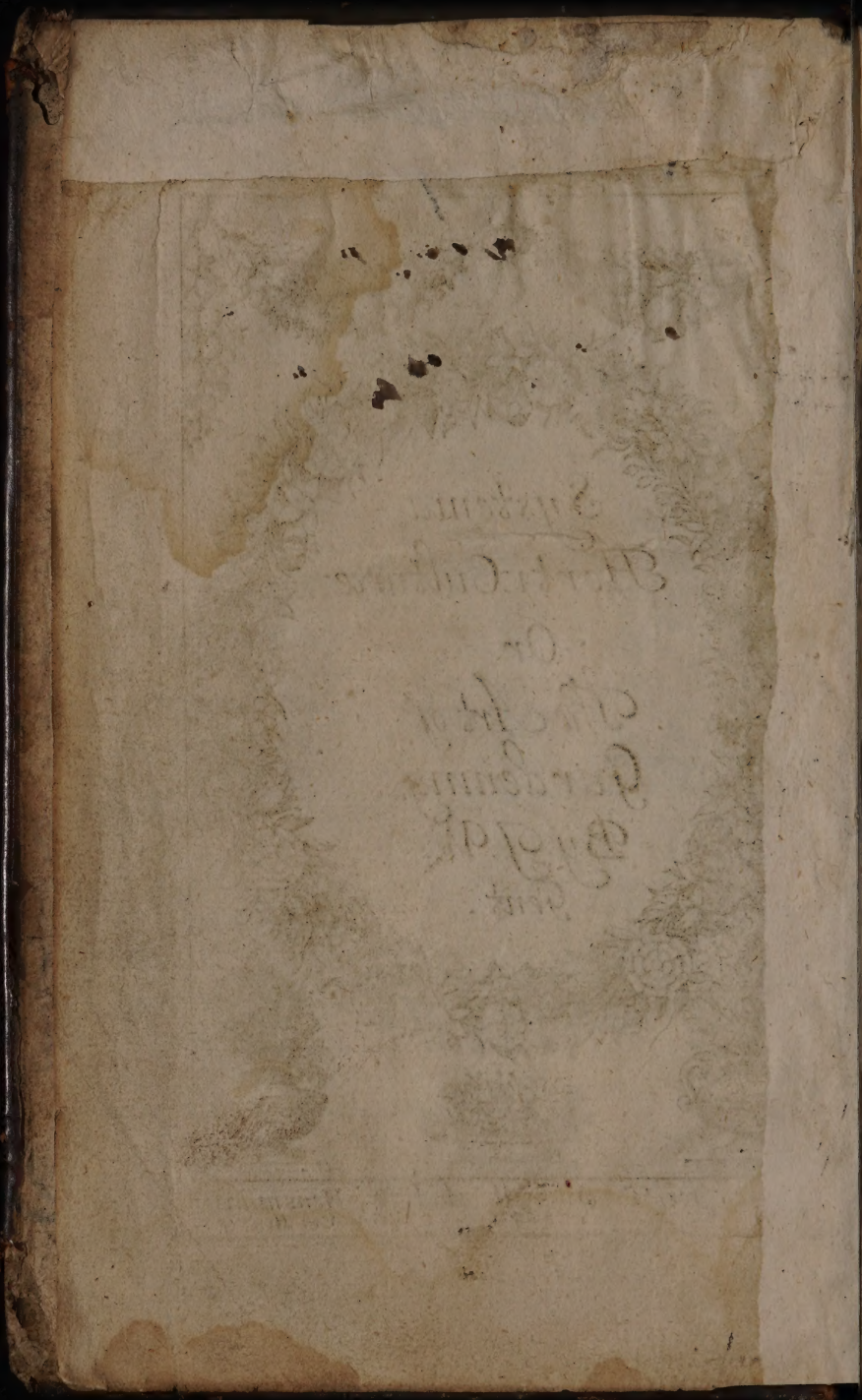

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Systema Horti-culturæ:

OR, THE

ART

OF

GARDENING

IN

Three BOOKS.

The I. Treateth of the Excellency, Scituation, Soil, Form, Walks, Arbours, Springs, Fountains, Water-works, Grotto's, Statues, and other Magnificent Ornaments of Gardens, with many necessary Rules, Precepts, and Directions, concerning the same.

The II. Treateth of all sorts of Trees planted for Ornament or Shade, Winter Greens, Flower Trees, and Flowers, that are usually propagated or preserv'd in the Gardens of the best Florists, and the best ways and methods of Raising, Planting, and Improving them.

The III. Treateth of the Kitchin Garden, and of the great variety of Plants propagated for food or for any culinary uses: Together with many general and particular Rules, Precepts, Observations, and Instructions, for the making hot beds, altering and enriching any sort of Garden ground, watring, cleansing, and adapting all sorts of Earth to the various plants that are usually planted therein. To the great improvement of every sort of Land, as well for use and profit as for Ornament and delight.

ILLUSTRATED with SCULPTURES, representing the form of GARDENS, according to the newest MODELS.

By *J. W.* Gent.

LONDON,
Printed for *Tho. Burrel*, at the Golden Ball under St. *Dunstan's* Church in *Fleetstreet*, and *Will. Henshman*, at the King's Head in *Westminster Hall*. 1677.

Licensed,

March, 4. 167$\frac{6}{7}$ R. L'ESTRANGE.

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THE PREFACE TO THE READER.

ARts as well as *Habits*, are subject to that fate of being in mode, as might be instanced in several, besides this curious Art of *Horti-culture*: which never declines when once it is become National, only varies in Form according to the several temporary humours of such that place their oblectations in it. As for that part of Gardening, which is for the propagation of Trees for pleasure, and beautifying Seats with invegetate Ornaments, scarce any part of the

world, but eſtimates it at a more than ordinary value. As for that part which is for *Flora*'s uſe, the extreme hot or cold parts are little addicted to it, thoſe in the temperate Zone the moſt: For theſe luſtrous beauties affect not *Sol's* ſcorching rays, nor can their tender lovely faces endure *Hyems*'s too great ſeverity, yet of the two extremes, the cold is the moſt tolerable, there being naturally more Flowers in the Meadows of the *Ruſſian* Territories, than in thoſe of *Guinea*. But as for that part that relates to *Eſculent* Plants, all Nations delight in it for the raiſing of ſuch that are moſt proper for their Climate, Nature it ſelf hath directed us where and in what parts *Gardens* are to be planted with advantage, having ſpontaneouſly expoſed to our view many curious

Plants,

Plants, which made *Varro* to ſay, *Divina natura dedit agros*; which is in effect, that Divine Nature hath indicated unto us thoſe grounds that are fit for theſe uſes: There reſts only our care and induſtry to till and manure them, which was an exerciſe appropriated unto us from the beginning. That our Engliſh ſoyl then is generally fit for all theſe uſes, may appear from its aptneſs to produce naturally ſo great variety of Trees for beauty and ſhade, Flowers for delight, and edible Plants alſo if they are ſown in it, which is a ſufficient encouragement for the *Ingenious* farther to proſecute this Art, which is of late years much improved in every part thereof. It was not long ſince that our choiceſt avenues were firſt planted with thoſe Ornamental ſhades that now are become common, and that

our beſt Gardens were only worthy of thoſe natural beauties that now flouriſh in every ordinary *Partir*, many of our now vulgar diſhes of *Tillage* alſo were but lately eſteem'd as rarities, and as this *Art* hath with its ſubjects encreaſed of late years, ſo have the inſtructions or treatiſes written to that effect been multiplied: The affections of our Countrymen ſo naturally tending that way, have given great encouragement to ſuch publications, ſome whereof are very large and voluminous, others there are that are more accurt, and treat only of ſome particular Plants and ways of ordering them: and as the Art it ſelf was at firſt lame, ſo have the directions for its improvement been. That if an inquiſitive perſon deſires to be informed of the different ways, methods, or means to order his Garden, *&c.* He muſt

procure

procure many ſeveral tracts, and thoſe differing very much in their rules and preſcriptions the one from the other, and delivering many fabulous ſtories, and directing you in erroneous ways, affirming them to be true that are merely ſuppoſititious, ſome of them are only tranſlated out of other languages, which were written for other Countries, whoſe *Horti-culture* (as their Climate) varies very much from ours, All which inconveniences I have here endeavoured to avoid, by contracting into a ſmall pocket volume, the names of the moſt and principal kinds of Ornamental *Trees* and *Flowers*, with their proper ways and methods of ordering, and an account of all ſuch *Eſculent* Plants that are here uſually propagated for culinary uſes: Together with the method and manner of ſelecting

grounds for Gardens, and the making, forming, and adorning them, and the improving, preſerving, altering or renewing the ſeveral ſorts of Earths for all hortulane Plants, wherein as near as may be I have not troubled you with unneceſſary, inſignificant, uſeleſs, nor falſe directions, but have inſerted only ſuch that either I have actually experimented to be true, or have them from perſons or Authors of good repute; or that are deduced from ſolid principles. Alſo I have not ſwel'd this ſmall Tract nor troubled your patience, with the many unneceſſary names nor characters of the various ſpecies of Flowers, and ſeveral other Plants, but nominated the more principal, the other being rather to be ſelected when in their prime by your Eye, than confided in from lame deſcriptions. It is better

ter

ter to truſt to the integrity of a Gardener than ſuch directions, that are uſually written and ſeem to emblazon the fame of a poor ſimple Flower, which when you ſee its higheſt luſtre in the beſt part of your Garden, (as by the deſcription and the price you gave for it, it ſhould deſerve) you are ready to remove it to the moſt abject place of your Groves. It may be objected that there are many things in this Treatiſe that have been formerly written of, and therefore it ſeems to be ſuperfluous. It is true, very able Pens have written of this ſubject, but they themſelves could not write without mentioning ſome things and thoſe not few, that had been publiſhed before: It being very rare to find a Treatiſe in this age, wholly of a new ſubject, and any one would eſteem it a grand deficiency in the improvement of this

this Art, if none ſhould have written of it ſince Mr. *Parkinſon*, Sir *Hugh Plat*, *Meager*, and ſeveral others, becauſe theſe had written before on the ſame ſubject, I hope therefore that this objection will have no place againſt this tract, the rather becauſe it hath the characters (that Mr. *Auſtin* hath propoſed in his Epiſtle dedicatory, before his *Tieatiſe of Fruit Trees*) that books of this nature ſhould have, *viz.* 1. *That they be of ſmall bulk and price*, wherein I hope I have conformed, conſidering the variety of matter herein diſcourſed of. 2. *That the ſtile be plain and ſuited to the Vulgar*: In this I am ſure I have not tranſgreſſed, for I have wav'd as near as I could, all hard words and intricate expreſſions (now in mode) not in any wiſe ſuitable to this plain, honeſt and ruſtick employment. 3. *That theſe*

Books

Books for instruction, be experimental: As to this proposal I have exactly observed it, you will also find several matters here treated of, that have not as yet been mentioned in any Hortulane Tracts, and many experiments very useful and beneficial that were never made publick before. My principal design being not only to excite or animate such that have fair estates and pleasant Seats in the Country to adorn and beautifie them: But to encourage the honest and plain Countryman in the improvement of his Ville, by enlarging the bounds and limits of his Gardens as well as his Orchards, for the encrease of such Esculent Plants that may be useful and beneficial to himself and his Neighbours. Many there are in this Kingdom, that out of small portions of Land, have by their industry and ingenuity in this very

very way of improvement, maintained themselves and their Families, and acquired over and above wherewith to enlarge their possessions. Several parts beyond the Seas, in *Holland*, *Flanders*, *France*, *Switzerland*, (of a near temperature of Air with us) can shew multitudes of Examples of this Nature, *Italy* also in *Pliny*'s time, now the Garden of the world, was then improveable by this way of Tillage: As appears by that history of *C. Furius Cresinus*, who out of a small piece of ground raised more advantage than his Neighbours out of their greater possessions, but then not without the imputation of sorcery, such was the ignorance and envy of that Age.

In this Country in many places ignorance, sloth, and envy, are great impediments to this way of improvement: No Country in the World being

being without some persons fraught with lazy & envious humors. Therefore we cannot be exempt from them, the best of Airs naturally nourishing the worst of Animals and the best of Gardens naturally producing the worst of Weeds.

As for slothful men, they are the greatest burthen to themselves, but envious men, although they are so great an affliction to themselves, (as *Horace* observed, that the *Sicilian* Tyrants never invented the like torment,) yet are they also the worst neighbours to good husbandry, not only to the constant depraving the endeavours and ingenuity of the industrious, but using all means they can to impede or prevent their prosperity: Like unto him that poysoned the Flowers in his own Garden, because his Neighbours Bees should get no more honey from them. A-

gainst

gainſt ſuch as theſe every ingenious and induſtrious man ought to be well provided with a competent proportion of patience and diſcretion, and not to be diſcouraged from proſecuting his intentions of improving his Ville, either by this way here propoſed, or by ſome of the ways formerly treated of for the planting of Fruits, or ſome other ways of Husbandry more advantageous than the old beaten way, ſo much by ſome contended for, there being no Land, eſpecially the ſmaller Farms, but is capable of improvement by ſome of thoſe methods propoſed: Although I know that there are many that contend for the ancient way of Husbandry, and living upon our own growths and manufactures as of old we have done, ſlighting and contemning the improvements that are daily made

Vide Vinetum Britannicum.

Syſtema Agriculturæ.

in

in all manner of Husbandry and *Horti-culture*, and in all Mechanick Arts and manufactures, seeming to emulate the felicity of former Ages, not considering the great mutations that are made in the world, as well in the various occupations and exercises of men, as in things of higher natures; many new Arts are discovered, and new ways of trade, not only to encrease manufactures, but to facilitate the great labour and expence men are put unto in the vulgar method of using them, of which very little hath hitherto been written, and of which (as time and opportunity shall favour me) I intend to discourse particularly, (having made a thorow scrutiny into many Trades, Arts, and Occupations to discover the great imperfections and defects of them.) Which may be of great use to the advancement of Trade,

Trade, and to the converting the labour and induſtry of the people of this Nation, and their beaſts of labour to the greateſt advantage, there being nothing more wanting in this Nation than hands to work up, and people to manage the great plenty of materials *England* affords: Not that I will propoſe conjectures and probabilities for real experiments and inventions, gain priviledges for their ſole uſe, and leave others at their own coſt and pains, to diſcover the truths and errors of them: And if they prove advantageous, to engroſs the profit to my ſelf as ſeveral have lately done. But faithfully to convince the impartial of former defects, and moſt apt ways to improve ſuch mechanick Arts and deſigns, that there may be as well an improvement of the manufactures and mechanick Arts, that

are

are operated out of our own growths and productions, as well as an encreaſe of ſuch growths and productions themſelves, all conducing to the honour, reputation, ſtrength, and advantage of this Nation. Many have ſet to their helping hands to ſeveral parts of that deſign, but rather by way of propoſals or encouragements (which have not been altogether vain and uſeleſs) others by irregular and unſucceſsful attempts, by which means ſome light hath been given to other things that have not proved unuſeful: As it is obſerved that thoſe that attempt the Philoſophers ſtone failing of their end, yet they diſcover many rare things of uſe and delight; and as hath been moſt evident that the many attempts that within theſe forty years have been made to keep Bees, (thoſe profitable inſects) in wooden

caſes, and thereby annually to take their honey and yet preſerve their lives, although the invention or rather conceit hath not yet ſucceeded, yet hath the hopes of gain prompted many to ſtock themſelves with Bees which deſign is now more likely than ever to be effected: Many ingenious men having undertaken at their great coſt and pains theſe two laſt years, and are yet upon their experiments, to ſee the end of it, very much to the reputation and advantage of him that gives them leave ſo to do.

There are ſeveral objections may be raiſed againſt improvement of Lands by Garden Tillage, ſome of them I ſhall take notice of in the enſuing Tract, the other are ſo ſlight that they are not worthy the mentioning, all ſeeming to proceed from the ſame principles, as thoſe have that

would

would not, that their neighbours ſhould breed Cattel at an eaſie rate, to hinder them from ſelling their own at a dear rate, and that would not have theFarmers that live on the dry lands, ſow any *Clover*, St. *Foyn*, or ſuch like,becauſe the productions of their lower & richer lands ſhould yield them the greater price, endeavouring to reduce all places to their old natural way of Husbandry, all lands to yield no other commodity, than what it will ſpontaneouſly produce,deſpiſing art and induſtry, deeming them as innovations. Nevertheleſs I hope I may excuſe theſe perſons being our ownCountrymen from ſuch ſtupid ignorance, and impute it to their intereſt which thus biaſſeth their judgments,& puts them ſometimes to the charge of a conteſt which their ignorance only would never provoke them to.

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Systema

Systema Horti culturæ;
OR,
The Art of Gardening.

LIB. I.

Of Gardens of Pleasure, and the Solid Ornaments thereof.

THE Excellency of a *Garden* is better manifested by Experience, which is the best Mistress, than indicated by an imperfect Pen, which can never sufficiently convince the Reader of those transcendent pleasures, that the Owner of a Complete *Garden* with its Magnificent *Ornaments*, its Stately *Groves*, and infinite variety of never dying *Objects of Delight* every day enjoys: Nor how,

all his Senſes are ſatiated with the great variety of Objects it yields to every of them: Nor what an influence they have upon the paſſions of the mind, reducing a diſcompoſed fancy to a more ſedate temper by contemplating on thoſe miracles of Nature *Gardens* afford; deemed Miracles, becauſe their admired and ſtrange forms and effects proceed from occult cauſes.

The Original of *Gardens* was from a Divine Hand: And they alſo long ſince delighted in by the wiſeſt of Kings, and in principal eſteem ever ſince by the beſt of men: The Heathen dedicated them to *Priapus* the Son of *Venus*, and celebrated them as Objects of admiration and delight, and left their immotal names to poſterity; as the *Gardens* of the *Heſperides*, *Adonis*, *Alcinous*, *&c.* The memory of the Latter being yet freſh in the Iſle of *Corfu*, where in a moſt delicious ſcituation it formerly was ſuppoſed to be, as a late Traveller * hath affirmed.

Tarquin the Proud (a Roman King) thought no place more worthy than his Garden to give Audience to an Embaſſador ſent unto him: And the Glory and Pride of the Romans in the time of their *Emperours*,

*M. Francis Vernon's *Letter to the Royal Society*, N. 124.

Emperours, was in nothing more seen than in their *Gardens*, which for the infinite delight they took in them, they dedicated to *Venus* their Goddess of pleasure, And gloried more in their Chaplets and Garlands of Curious Greens and Flowers, than our vain Contemporaries now do in their richest party-coloured habits, which he that reads what *Pliny* observed of them will readily believe.

The *Italians*, in the time of their Ancient Glory, thought no Palace nor Habitation complete without its Garden, on which they spared for no cost as well in their forming them as for the naturalizing several exotick Plants they brought from *Affrica* and other Foreign places. Which Gardens they have from Age to Age so improved, that it is now become it self the Garden of the World. And as Architecture, that splendid Art hath spread it self with other Sciences into these Northern Climates, so hath the Art of Gardening been handled along with it, as though the former were imperfect without the latter: The Glory of the French Palaces, so often represented to our English Eyes in sculpture, are adorn'd with their beauteous Gardens before

them, which wanting, they would seem without Lustre or Grandeur.

Neither is there a Noble or pleasant Seat in *England* but hath its Gardens for pleasure and delight; scarce an Ingenious Citizen that by his confinement to a Shop, being denied the priviledge of having a real Garden, but hath his boxes, pots, or other receptacles for Flowers, Plants, *&c.* In imitation of it, what curious Representations of Banquets of Fruits, Flower-pots, Gardens, and such like are painted to the life, to please the Eyes, and satisfie the fancy of such that either cannot obtain the Felicity of enjoying them in reality, or to supply the defect the Winter annually brings?

So that we may without vanity conclude that a Garden of pleasant Avenues, Walks, Fruits, Flowers, Grots, and other branches springing from it, well composed, is the only complete and permanent inanimate object of delight the world affords, ever complying with our various and mutable Minds, feeding us and supplying our fancies with dayly Novels.

All curious pieces of Architecture, Limning, Painting, or what ever else that seem

ſeem pleaſant to the eye or other ſenſes at firſt ſight or apprehenſion, at length become dull by too long acquaintance with them. But the pleaſures of a Garden are every day renewed with the approaching *Aurora*.

While with ſucceeding Flow'rs the year is crown'd
Whoſe painted Leaves enamel all the ground;
Admire not them, but with more grateful Eyes
To Heaven look, and their great Maker prize.
In a calm night the Earth and Heaven agree,
There radiant Stars, here brighter Flow'rs we ſee.
Gardens, as if immortal ne'r decay,
And Fading Flow'rs to Freſher ſtill give way. Rapinus.

Such is its pre-excellency that there is ſcarce a Cottage in moſt of the Southern Parts of *England* but hath its proportionable Garden, ſo great a delight do moſt of men take in it; that they may not only pleaſe themſelves with the view of the Flowers, Herbs and Trees, as they grow, but furniſh themſelves and their Neighbours upon extraordinary occaſions, as Nuptials, Feaſts, and Funerals, with the proper products of their Gardens.

Flowers in many things convenient are,
Our Tables, and our Cupboards we prepare
With them; and better to diffuse their scent,
We place them in our Rooms for Ornament.
By others into Garlands they are wrought;
And so for off'rings to the Altars brought.
Sometimes to Princes Banquets they ascend,
Rapinus. *And to their Tables Fragrant Odours lend;*

It furnishes our Kitchin and Tables with various Esculents, as well satisfying nature as pleasing our Appetites, it yields us various Spirits, Essences, Perfumes, Waters, Unguents, Conserves, Preserves, and many other necessary, useful, and pleasant Dietical and Medicinal Curiosities, which the same *Rapinus* hath elegantly expressed in his Poems on the same Subject, and at last concludes,

I should too tedious be, If I should sing
The mighty Aids which Herbs and Flowers bring
To the diseases men are subject to:
For these the Gods with Vertue did endue.

CHAP.

Chap. I.

Of the Scituation and Soyls of a Garden, and their Improvement.

Sect. I.

Of the Scituation of a Garden.

It may ſeem needleſs to ſay any thing of the Scituation of a Garden, it being ſo abſolute a Concomitant to your Habitation, that a Garden remote or by its ſelf is neither pleaſant nor uſeful. Therefore where ever your Houſe is, near it muſt be your Garden.

But in caſe you have not yet laid the foundation of your intended reſidence. Then may you conſider what Ground or Soil is beſt for your Plantation and Partirre, without which you can never make the other complete.

Therefore as near as you can, let the Soyl be good, deep and light, that Trees and Tillage may proſper in it, and then

you need not question but Flowers will thrive there: Let it have the free and open Air to the East and South, but the South-East is to be preferred, and the North defended by tall Trees which are better than Hills which give too great a reflexion of Heat in the Summer, and impede the cool Breezes that frequently come out from that Coast. If the whole Garden be at some distance defended by tall Trees, it will very much break the fierce Winds and serene Airs that in the Winter and Spring usually annoy the most delicate Plants and Flowers, and will also yield a cooling, refreshing, sweet and healthy Air and Shade in the hottest Seasons.

If the Soyl be dry and warm, a plain Level is best for a Garden, but if it be cold or moist, then declining or shelving towards the Sun is the best position, because by Fosses or by the Walks only the water naturally glides from it. And in such a Garden Trees, Plants and Flowers will thrive exceedingly.

These rules are good where you are to make your election, what sort of ground and where you design your seat, I might have also added the springs of water in or near

near your Garden, are great additions to the improvement, Beauty and Glory of it; but that its hoped few will ſeat themſelves where that Element is wanting, unleſs it be for the ſake of ſome pleaſant Grove, Proſpect, or delicate Air; Woods and Water, being two of the beſt Ornaments of the Seat, which may be had in moſt places, together with a good Air, but ſeldom Water and a good Proſpect.

If you are fixed or limited to a place or ſcituation, that puts an end to Election, and then you are to conſider the nature of the Soil you are on, what it is apt to produce, how to be corrected and improved.

SECT. II.

Of the different, and moſt natural Soils for Gardens.

LAnds are uſually inclinable to Loam, Clay, Chalk, Marle, or Sand.

A Loamy Land is uſually free, and apt to vegetation, warm and eaſie to till, the ſadder the colour the better; if it be free from ſtones and gravel, with a ſandy mixture and mellow withal, it is eſteemed the beſt

best for Gardens, for the most sorts of Fruits and Flowers.

There is much Land that is mixed with Clay in too great a proportion, which maketh it apt to bind, and is cold and moist in the Winter season retaining wet too much, and apt to chap in the Summer, it is injurious to most Fruits and Flowers, and therefore hath most need of help of any other.

Chalky Land is generally very sweet, and kind to many Plants that are not very tender, it being cold in the Winter, and suffers not its Plants to put forth early in the Spring, it is not difficult to be corrected, and made more natural to the choicest Fruits and Flowers.

Marle is a very good mixture in Land, so that it be not in too great a quantity, it being much of the nature of Chalk, but easier to be tilled and improved.

Sandy Land is very warm and free, very apt for vegetation, and amicable to most of our choicest Fruits and Flowers. But if the Sand predominate, it will require a constant supply of proper Soils to enrich it.

SECT.

SECT. III.

Of the Improvement of ſuch Soils.

THere are many parcels of Land lying near Towns, Villages and Houſes, that are of that excellent mixture of Loam and other earths, that they are capable to entertain moſt of the delicate Fruits, Flowers, and other curioſities, that are fit to be planted or propagated in your beſt Partirs without any other mixture or compoſition, other than convenient dung of Oxen, Cows, Sheep, Pullen, Pidgeons, and ſometimes old and rotten Horſedung, to preſerve it in its due and wonted fertility, it being by continual weeding and the attraction of the Plants you furniſh it withal, apt to ſterilize. So that where your ground is thus naturally fertile and prone to vegetate, you need take no other care than to apply proper Soils or Compoſitions, according as the Nature of your Plant requires, or to maintain it in its full vigour.

Claiy Land being cold, moiſt and ſtiff, is to be converted by labour, and mixtures

mixtures of a contrary nature, if you dig it often, the Sun, Rain, and Frosts, will make it more friable and fertile: For take Clay and lay it on any other Land, it will in time dissolve, and unite in minute parts with it, that you shall hardly discern it, so also will it be much altered by culture on its own Basis, the wet being carefully drawn from it by declining Canals for that purpose, Water being the only thing that maintains its stubborn nature, if it rest on it.

But to accelerate the operation, and make it speedily more benign, Sand is an excellent ingredient, especially that taken up in the bottoms of Rivers, or where hasty currents have left it at the foot of Hills, or Sea Sand where it may be had. Any old Thatch or corrupted Vegetables as Weeds, Fern, *&c.* Buried in the Trenches as you dig it, drains the wet from it and makes it more mellow. But above any thing Peat ashes, Turf ashes, or any ashes proportionably, and well mixed is the highest improvement, you can add to your cold, stiff, and moist land. There are several other additions that will improve it, as rotten wood, saw dust, the bottoms of piles of wood great and small,

but

but these being not to be had in any great quantity, will serve only in these beds where you intend to plant your choicest Flowers, but Chalk, Lime, Marl and such like, although they sweeten it at the first, yet in the end it unites with the Clay, and is soon converted into its own nature.

Chalky Land usually yields a good rich surface, therefore you must avoid planting too deep in it, and where you can with conveniency, the sinking your Walks; and with the same matter to raise your borders, is a very good improvement of this sort of Land. You may also deal with it as with the Claiy Land, though in a more moderate way, for Chalky Land is naturally cold, and therefore requires warm applications, and is also sad, and will the better bear with light composts, which is the reason that Chalk is so great an improver of light, hot, and dry grounds, especially having suffered a calcination.

Lands seated on Marl, are usually very rich, although cold and heavy, you need not doubt of the depth of it: for the turning it up and exposing it to the Air, converts it into good earth, a mixture of light and warm soyl exceedingly advantages it.

Sandy Lands, or Land that hath a competent

petent mixture of Sand in it, is the warmeſt and lighteſt of all, and according to its fatneſs, it is the moſt free and apt to produce the moſt of Vegetables you plant in it. Sandy Lands are beſt improved by mixture of Chalk, Lime, Marle, the ſediments of Ponds, Lakes, or ſtanding Waters, and need a more conſtant ſupply of ſuch additions than any other, unleſs you have the command of ſome Spring or ſtream of water to irrigate it, and prevent the Suns exhaling the moiſture it ſo eaſily parts withal, for we may conſtantly obſerve in rainy Summers, what vaſt products Sandy Land will afford us, compared with the dry. The ſame you will find in your Gardens, but the hot dungs are here to be neglected, and the more cooling made uſe of.

There are ſeveral other ſorts of Land, that are known by ſeveral other names, which I might here enumerate, but theſe being the general, and moſt Lands falling under ſome or one of theſe capacities, I ſhall not trouble you with them, here brevity being my ſtudy.

But if your Lands or Grounds within the precinct of your Garden, be ſomewhat of a different nature or quality from theſe

before

before mentioned, yet may those general directions as concerning that Land it is neareſt of nature unto, ſerve for your Land. And if you have any Trees, Plants, or Flowers, that delight in Land different from the more general part of your Plantation, then may you compound your mold in ſome place proper for ſuch Plant; directions for which you will find diſperſed in this ſucceeding Tract, eſpecially when I come to treat of Eſculents.

CHAP.

CHAP. II.

Of the Form of a Garden, and its Fencing and Enclosing.

SECT. I.

Of the Form of a Garden.

AS before was observed concerning the scituation, so now may it be as to the form, that if ye are already limited and bounded, by reason of the scituation of your house, and the contiguous parts about your intended plantation, you must cast it into as good a form or model as you can, but if you are at liberty, then may you make your election of what form pleaseth you best.

The Round is very pleasant, and some curious Gardens there are of that Form in foreign parts. The Walls about such a Garden are very good for fruit, the Winds being not so severe against a Round, as against a streight Wall. The Walk also that circundates that Garden is not unpleasant,

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pleaſant, for that you may walk as long as you pleaſe in it always forwards without any ſhort turning. ſome ſtreight Walks there may be that tend from the circumference to the Centre. The ſeveral quadrants may be ſub-divided and planted with Fruits, the borders of the round Walk, and the Croſs Walks being ſufficient for Flowers and Plants of beauty and delight. At the Centre of this Garden may be planted a Fountain, or in defect of water a banqueting houſe or houſe of pleaſure.

A rude draught of ſuch a form is here preſented to your view, the outermoſt Walk being adorned with Cypreſs Trees, the inner parts of the Graſs Plats with Firr Trees, and the Quadrants within the leſſer Circle, planted with variety of Fruit Trees, and the principal Walks round and ſtreight, bordered with Flowers, and delightful Shrubs and Plants.

Encompaſſed with a Palliſade in the Centre of your Garden, is a Fountain of Spring water always flowing, ſerving not only to refreſh the Spirits of ſuch that delight in the ſight of it, but is neceſſary in dry and hot ſeaſons, to preſerve your choiceſt Plants from injury.

The Square is the moſt perfect and pleaſant form that you can lay your Garden into, where your ground will afford it, every Walk that is in it being ſtreight, and every Plant and Tree ſtanding in a direct Line, repreſents it to your Eye very pleaſing. The delight you take in walking in it being much the more as you are leſs careful: for when you walk in a round or circle, you are more ſubject to treſpaſs on the borders, without continual thoughts and obſervation of your Ground.

You may divide your Square into three parts by Palliſades, the long way beginning at your Houſe, the middle third part containing a large Gravel walk, adorn'd on each ſide with a border of your moſt Select Plants, Shrubs, and Flowers, between thoſe borders and the Palliſades, green walks with Borders next the Palliſades, on which you may Plant Perennial Greens, and your more ordinary Plants and Flowers.

The other two partitions of your Square you may convert the one of them into an Orchard, the other into a Kitchin Garden which will be no ſmall Ornament to your middle Garden of pleaſure.

But if you are willing to celebrate ſo fair

fair a ſpot of Ground as the whole Square to the delights of *Flora*, then may you divide it into leſſer Squares, and make of them Graſsplots, leaving only borders on their confines for your variety of plants.

The new mode of Gravel Walks and Graſs-plots, is fit only for ſuch houſes or Palaces, that are ſcituated in Cities and great Towns, although they are now become precedents for many ſtately Country Reſidencies, where they have baniſh'd out of their Gardens Flowers, the Miracles of Nature, and the beſt Ornaments that ever were diſcovered to make a Seat pleaſant. But it's hoped that this new, uſeleſs, and unpleaſant mode, will like many other vanities grow out of Faſhion.

A draught of the Square Garden I have here given you, which may be varied as every deſigner pleaſeth, each principal walk is bordered with Flowers, each principal Corner with Flower pots, and the middle of the greater Square with Statues. The farther end Fenced with a Palliſade, that the proſpect of the adjacent Orchard may not be loſt, where now the Statues ſtand, if Water be to be obtained, Fountains would be placed with more delight.

The infinite variety of Forms that might

be drawn and here represented to you, would but encrease your charge, when perhaps every Builder may better please himself in in the shape and contrivance of his Garden better than any other can do for him.

But these few rules are not amiss to be observed, *viz.* That you endeavour to make the principal Entrance into your Garden, out of the best Room in your House or very near it, your Walks being places of divertisement after a sedentary repast. The Aromatick Odours they yield, pleasant refreshments after a gross dyet, and such innocent exercises, the best digestive to weak Stomachs. Let there be some other door into your Garden, for Gardeners, Labourers, *&c.* And let your principal walk extend it self as far as you can in length directly from your choicest Plants for Beauty and Scent, and that there may be a succession of them through the Year, not without Flower pots which Grace the best of Gardens.

House adorned with the

If your Ground you intend for a Garden, lye on the side of a Hill, your Walks may be made the one above the other, and be as Terraces the one to the other; the declining sides of them, being either of Grass alone or planted with Fruit. If

If your Houſe ſtand on the ſide of a Hill and you muſt make your Garden either above it or below it, Then make your Garden below it, For it is much more pleaſant to view a Garden under the Eye than above it, And to deſcend into a Garden and aſcend into a Houſe, then on the contrary.

As for all other formes and ſcituations of Ground above your Houſe, you muſt vary your modells according to the place.

SECT. II.

Of Fences and Incloſures to a Garden.

WHen you have diſcovered the beſt Land, and pleaſed your ſelf with the compleateſt Form you can imagine for your Garden; yet with out a good Fence, to preſerve it from ſeverall Evils that uſually annoy it, your labour is but loſt. Your fences muſt be conſidered of according to the place you reſide in and nature of the Soyl, And is either, of Brick, or Stone, of Earth, Pale, Palliſade, or Quick-ſetts.

Of all which the Brick-wall is the beſt, 1. *Of Brick-Walls*

beſt, it being the warmeſt (except board) and very dry and con-natu-rall to Fruit. And where Brick are plenty, it is not a Dear Fence conſidering that their form much accelerates the raiſing your Wall, and their even joynts require but little Mortar. You may alſo make the Wall much thinner with Brick, than any other Material (Square Stone only excepted) becauſe you may make Nieches at a reſonable diſtance, or Square Pillaſters on both ſides or only one ſide which will ſupport the wall, although very thin in the intervals: This wall needs no other Coping than Bricks, ſet on edge ſide-ways without any over-hanging or dripping, as hath been uſed.

By which means of building them Thin in the intervalls with Nieches or Pillaſters, at fit diſtances and ſlender copings, almoſt half the materials are ſaved in the building of them, and moſt of the workemanſhip.

Theſe Walls are very kind to Fruits under which they bear abundantly; the Nieches and Pillaſters conduce very much to the breaking off the cold Winds, and ſhelter the Fruit from them.

2. *Of Stone-Walls.* Next unto the Brick, Stone-Walls are preferred

preferred, the Square hewn Stone out of the Quarry, especially Sand or Free-stone, is the best, the cold white Stone like unto Chalk or Lime-Stone is not so good. The Rough Heath-Stone or Burre is very dry and warm, but by its unevenness is unconvenient to tack Trees against, unless you disperse here & there in the Building some small squares of Timber, or Brick-bats in the joynts whereof Nayles will enter and take. Flints are very cold and uneven joynted and therefore the worst of all Stone for a Garden Fence, ~~Because you may reasonably expect from the Fruits Growing against them in time a full compensation for your charge in Building them.~~

All Stone walls must be well coped, lest wet insinuates it self between the Stones and decay it in a little time. A coping of Tyle is the best, if made to carry off the drip 3 or 4 inches from the wall.

3. *Of Walls of Earth.*

In many places where Stone is dear, and Brick scarce, and Lime and sand not neer, Walls are often made by a Compost of Earth and Straw tempered with it, This Earth must be either of a clayish nature or have a little mixture of Clay in it, it must be well wrought and mixed long with *with* Dung

Dung or ſtraw which ſerves to hold it together until it be throughly dry; and then according to the skill of the Workman wrought up into a Wall and covered with thatch, being not able to bear a more weighty coping.

Theſe Walls well wrought and well coped and preſerved dry will laſt many years and very warm and kind to Fruits, that is to ſuch that are content to be humble, theſe Walls being rarely built high.

In the Building theſe Walls, peices of Wood or Hooks of Iron ought to be placed in, at convenient diſtances ſtanding three or four inches without the Wall, to which Poles or rayles are to be faſtned and to them your Fruit-trees: there being no tacking Trees to the Wall it ſelf.

This way of Fencing is much uſed in ſome parts and ſomewhat reſembles the *French* way of making Walls for fruit, for what ever they are made of they are plaſtered over, and hooks of Iron or Sheeps ſhank-bones placed in the building of the Wall at ſome convenient diſtance to affix the Poles unto, as in the ſmall French piece called the *Planters Manuall* adapted only for that Country

may

may be obſerved. Alſo *Rapinus* at large deſcribes the making of that Wall, and both of them preſcribe the plaiſtring of them, as well to deſtroy the vermine that would otherwiſe ſhelter themſelves in the rotten cavities of thoſe Mud Walls, as to accelerate the maturation of your Fruits.

So that here in *England* where other materials are ſcarce, and ſuch a ſtiff Loam in the place, theſe Mud-Walls may prove beneficial, not only for ſecurity, warmth and privacy, but for the advancement and melioration of your Fruits, more eſpecially if Lime be not wanting to make a plaiſter to cover it after that French mode.

It is not improbable that a mixture of Loam, Lime, Sand and Gravel or ſmall Sand ſtones, may by being raiſed between two planks, and ſo by degrees to the height of a Wall, and then well defended by a light coping, make a very good and durable Fence and Shelter for your beſt Fruits. This ſeems to be the ſame way that *Pliny* mentions. The Walls to be made in his time, which then had continued many Years, and not impaired reſiſting all Weathers, he mentions Turrets and Sconces to have been made after this manner, *Lib.* 35. *Chap.* 14.

Good

4. *Of Pales.* Good Oaken Timber ſawn into Pales make a very good Fence, and not dear where that Timber is plenty: Next unto Oak, Fir or Deal Boards will ſerve; but ſcarce any other Board will endure the mutability of the Weather long.

Theſe Boards ought to be well ſeaſon'd; elſe will they ſhrink and chap exceedingly, which will be inconvenient, as well by rendring your Solitary Walks leſs private, as by admitting cold Breezes to your tender Fruits, but in caſe your Board do not meet in the dryeſt and hotteſt ſeaſons, you may add a ſmall Battel to each Interval, fixt to each Rail by Nails between the Boards, that the ſwelling and ſhrinking of the Board may not injure the Battel.

Theſe boarded Fences are the warmeſt for your tender Fruits, and maturates them beyond any other, but being ſubject to decay, are not repairable without damage to your Trees.

5. *Of Paliſades.* I have already mentioned the moſt principal and beſt Fences for the outſides of your Garden, for Privacy, Security, and advantage to your Fruits. There are yet neceſſary other Fences for the cantoning or dividing your Garden into leſſer parts, for the ſeveral uſes you deſign them for,

or

or for the security of some particular parts of your Garden or Fruits or Flowers, from the hands of every one that may otherwise have liberty or occasion to walk there. Yet not to impede or diminish the pleasure in viewing those objects of delight thus defended.

These open Fences are made of Board of about three or four inches broad, and three or four foot long, either nailed to, or let thorow two Rails, with heads cut either round or like a Lance, and painted white with Linseed Oyl, and white Lead two or three times over to make them endure the Weather.

But the best material to make these Pallisades withal is Iron, so framed as are the Iron Balconies in *London*, save only that these appear above the Rails with square painted Heads which seem most beautiful, by reason that Flowers and other delightsome plants appear so plain through them, This Fence is also permanent and needs no repair.

In imitation whereof, there is newly made in some few Gardens a Pallisade of Boards, of about three or four inches broad which as before it was set flat-wise, each pale in the Pallisade is now set edge-wise.

the

the upper Rail running through each pale and the Foot cut with an Ox mouth and ſet on an Arras Rail, either near the ground or reſting on a ground-pinning of Brick. The head of each pale is about three or four inches above the upper Rail, divided into two parts, the middle vacancy being about one third part of the whole bredth, the two extream parts for about four or five inches, being cut with ſquare pyramidical points, do very much reſemble thoſe made of Iron. As you ſtand againſt them they appear open, and every thing very conſpicuous through them like the Iron, but as you view them obliquely they appear full, only their ſharp heads more open and not unpleaſant. Theſe Palliſades, although they require ſomewhat more timber and workmanſhip than the ordinar ſort; yet are by far the more compleat and beautiful, every motion of your Body from its place, begetting a variety in the object.

Theſe open Fences are much more pleaſant and uſeful in your Partirs and inward Gardens than cloſe Walls, for theſe prevent not your view of the whole, nor hinder the free Air from your Plants, which is as neceſſary in ſome degree as warmth, which ought to be obtained from Shelters

and

and Fences at a distance, not by too great a reverberation of heat, and stifling in the Summer for want of Air, either of which proves fatal to most Flowers.

Gardens are oftentimes secur'd by quick-Fences, whereof the most easie to propagate is that of the white Thorn, which being well planted in double, treble, or more chests or rows of Plants, and kept weeded and defended for three or four years, will thrive very well in most sorts of Land, and being kept clipp'd, sheer'd, or cut with a sharp hook, will grow so thick that a Bird cannot find its way through, and that from the ground to six or seven foot high, and proves a very great security against bad Weather, evil Neighbours and Cattel, but is a shelter for Snails and other Vermine that will constantly annoy your best Plants, and are not therefore to be planted near your Partir wherein you plant your best Flowers. *6. Of Quick-Fences.*

A Quick Hedge of Holly is the most beautiful and most Compact of any, but the tediousness of its growth is enough to discourage any man from attempting its propagation, its seed being two years before they appear above the Ground, and its plants long before they let you know of their like or dislike of the Soil. *Py-*

Pyracantha planted for a Fence, proves very ſtrong by reaſon of its ſharp Thorns, and ſtubborn Branches: *Sweet-Bryar* alſo is very good and makes a fragrant Fence, but the White Thorn will not give way to either of them, being eaſily propagated, moſt tonſile of any, durable, of a delicate colour, and early appearing in the Spring.

CHAP.

Chap. III.

Of the Walks, Arbours, and Places of Repose in Gardens.

It is not the least part of the pleasures of a Garden, to walk and refresh your self either with your Friends or Acquaintance, or else alone retired from the cares of the world, or apart from company that sometimes may prove burthensome to you, and when your own Lassitude or the Heat, Rain, or scorching Beams of the Sun render the open walks unpleasant, to repose your self under some pleasant Tree, or in some Covert or Shade, until you are willing to try the Air again.

SECT. I.

Of Walks and Materials for them.

Wherefore to acommodate you for all seasons wet or dry, hot or cold, it is convenient to have Walks and Places

1. *Stone-Walks.*

Places in your Garden, proper for them As for Walks, the best for the Winter and wet seasons are those paved with Stone, about the bredth of five foot in the midst of a Gravel Walk of about five or six foot Gravel on each side the stone, or of Grasse which you please, For on these flat Stones may you walk securely under-foot in all weathers without prejudice to your self or walks.

2. *Gravel-Walks.* Next unto the paved stone are the Gravel Walkes to be preferred which if made with a fine skreened red Gravel do very much adorn your Garden and being laid round and kept rolled with a Stone Roller, cast off the Water and are very useful in moist weather to walk on.

The Gravel Wall are best under your Fruit Walks because the Beams or raies of the Sun reflect from them against the Walls much better than from Grass, and very much advantage your fruit.

The great inconveniences these Walks are subject unto are Weeds and Moisture, To prevent the Weeds you must be sure to remove all manner of Earth clean from the place before you bring in your Gravel, And in case the Earth be not stiff enough of it self, it would not be amiss to sup-

port

port the ſides with two or three courſes of Brick or at leaſt a Brick ſet on end edge by edge, to prevent the falling in or mixture of the ſide Earth with your Gravel; yet ſo that the upper part of your Brick may be an inch beneath the ſurface of your Walk, that it may not be diſcerned. If your Ground be good and apt to vegetate, ſeven or eight inches deep ought your Gravel to ly, leſt the Weeds find their way through: you ought alſo to cleanſe the Ground under from the Roots of Graſs, Weeds, as Nettles, Docks, *&c.* leſt they find their way through the Gravel, you may fill your Walk with ordinary courſe unskreened Gravel five or ſix inches, and after that is levelled, then lay on your laſt Courſe of fine Gravel and roll it well, if your upper Courſe of Gravel be two or three inches thick, and at any time your Walk grow diſcoloured or moſſy, you may ſtir it with a Spade as far as the fine Gravel lies, and finely rake it, then Roll it again, and it will appear to be as freſh as at the firſt.

The other inconvenience theſe Walks are ſubject unto is Moſture, eſpecially after a Froſt, which very much looſens the Gravel, and long ſoaking Rains make it apt

to ſtick to your Feet: For the beſt red Gravel hath a mixture of Clay or Loam in it, which makes it in dry weather bind the better; to prevent which, ſeveral expedients are lately made uſe of. Some do grind or beat ſmall the ſhells of fiſh gathered on the Sea-ſhore and therewith add a thin coat on the gravel which by conſtant rolling incorporates with it, and is not apt to adhere to your Shoes, as is the Gravel it ſelf. Others that Live neer to Brick-kills make uſe of the refuſe parts of Bricks that are under-burnt which will eaſily Pulverize, and lay that on the Gravel-walks which prevents the ſame inconvenience, and adds much to the beauty of your Walk and is eaſily renewed as there is occaſion.

On the edge of your Gravel-walks you may lay on each ſide a narrow Walk of turf for your uſe in hott weather or when you are willing to favour your Feet or your gravel, which being kept out ſtreight on the edges, beautifies your Gravel.

But if you will have your Walk only Gravel, then will it be neceſſary to edg it with Brick three or four inches above the ſurface: to prevent Earth or rubbiſh from intermixing with it, Bricks ſett on end

end side by side is the secureſt and moſt laſting way, for this purpoſe.

Walks of Graſs are very pleaſant and much to be preferred in the Summer to any of the other, being cold and eaſie to the Feet. They are either made by laying them with Turf or by raking them fine and Sowing them with Hay-duſt or Seed (which may be had at the bottom of a Hay-mow or Rick) and well rolled and weeded from all groſs Weeds will ſoon become a fine Graſs-walk, if theſe Walks alſo be laid a little rounding, they will caſt off the Water the better and be more commodious for your uſe than if flatt. 3. *Green Walks.*

A Water table on each ſide of two or three inches deep, cut every Year anew, not only receives the waſt Water but preſerves the Graſs or Weeds from mixing with your Borders, and preſents your Walk much more pleaſant to your eye than if it were otherwiſe.

To deſtroy Weeds in the Gravel-Walks or paved Walks where you cannot conveniently eradicate them, you muſt water it with very Salt Water, or with the liquor they have at the Salters which they call *Bitterne* which abſolutely deſtroyes all vegetation where it is caſt in an indifferent good quantity.

4. *Of Terrace-walks.*

It is none of the least obleciations a Garden affords, to have Terrace Walks, on which you have the benefit of the Air, and prospect on your Garden. These in former Ages (and now also in more hot Countries) were much celebrated, the *Hortipensiles* or *Pendantgardens* were after this manner made above the ordinary level, for the advantage of the Air and pleasure of the Eye, and somewhat to add to the magnificence of the Place, being very Beautiful as well as Commodious.

They are usually made where much Earth or Rubbish is to spare, which would cost time and labour to remove, and here is disposed of to advantage, with the only expence of a Wall on the out-side to support it, or if you please on both, but the inner side to your Garden may be made declining and clothed with Turf. The Wall on the out-side surmounting the top of the Walk about three foot, and on the edge towards your Garden may be set a Rail, or Rail and Ballisters, or a Pallisade, or a quick tonsile hedge of about the same height the Wall is of, that neither side prevent the Air nor impede your prospect.

In some Gardens where Water is at your command,

command, the ſinking of an Aquæduct or Piſcary will afford you materials for your Terrace-walk, both of which are beſt and moſt proper to be made at the fartheſt diſtance from your houſe.

SECT. II.

Of Arbors, and Places of Repoſe.

TO make your Garden pleaſant at all times and in all ſeaſons, either in reſpect of the great variety of Weather, or your own diſpoſition or indiſpoſition, it will be very neceſſary to accommodate it with places of ſhade, to skreen you from the ſcorching Sun-Beams, Canopies to preſerve you from the Rain, and Boxes to ſeclude you from the too cold Breezes: That although you are not willing to expoſe your ſelf too much in the intemperate Air, or your preſent inability or unaptneſs for a walk be ſuch, that you cannot with delight enjoy it; yet that by them you may not loſe thoſe exhilerating pleaſures your Garden moſt times affords.

For cool Receſſes in the hotteſt times, it hath been uſual to erect or frame Arbors 1. *Of Arbours.*

with Poles or Rods, and plant them about with ſhady Trees, which are an Ornament to ſome Gardens, but to be rejected, 1. Becauſe they require much repair, and care to preſerve them, for in your Garden of pleaſure you ought to be frugal of coſt and pains, leſt your delights become occaſions of prodigality, and your recreations burthenſome to you. 2. Becauſe theSeats are apt to be moiſt and foul, it being apt to impair your health to ſit on a cold Seat, Salubrity being one of the Advantages expected from a Garden. 3. After a ſhower in the Summer, is the pleaſanteſt time to recreate your Senſes amongſt your odorous Plants, and then this place of receſs is wholly uſeleſs, the dripping continuing long after the ſhower. 4. The uſual cool Breezes that you will ſenſibly feel in thoſe Arbors, balance all the conveniences you can expect from them.

But if the Weather and time of the day invite you to ſit in the Air without inconvenience, a Seat under the ſhade of ſome *Platanus*, *Lin-Tree*, or the like, is much more pleaſant, than to be hoodwinked in an Arbour.

You

You may have a Seat made of thin and light materials, and painted with Oyl of a white colour or as beſt pleaſes your fancy, which may be moveable with a little help, and placed ſometimes in one place and ſometimes in another as the Weather happens. This Seat may be made cloſe behind and covered, that being ſet with the back to the Wind, will be both warm and dry. 2. *Of Seats.*

In the Nieches of your Wall may you place Seats covered over, that you may reſt your ſelf in at your pleaſure: At the ends of your Walks are the moſt proper places for ſuch Seats, that whilſt you ſit in either of them, you have the view of your Garden.

The beſt Form for theſe Seats is round, the one ſemicircle within the Wall, the other without with a *Cupulo*, the outward part to be ſupported by three or four, or more columns of Timber or Stone, the other part reſting on the Wall, the Top covered with Lead, Slate or Shingle, with its due Corniſh about that part that is off from the Wall.

Or you may make them of a long ſquare Form, about two foot in the Niech of the Wall and as much without, covered as

the round, but casting the drip side-ways or backward.

Having several of these Seats facing to each Coast, be the Wind or Sun either way, you have a place to defend your self from it.

You may also cover your Benches or Stools with Mat, and lay the Floors with Board, which will much conduce to your own ease and health.

3 Of Pleasure-houses.

Arbours, Benches, and Seats are very necessary, being present expedients for them that are weary, but that which Crowns the pleasures of a Garden is a place of repose, where neither Wind, Rain, heat, nor cold can annoy you.

This small Edifice, usually term'd a Pleasure-house or Banqueting-house, may be made at some remote Angle of your Garden: For the more remote it is from your house, the more private will you be from the frequent disturbances of your Family or Acquaintance, and being made at an Angle, part within your Garden and part without, you will have the priviledges and advantages of Air and View, which otherwise you will want, and which render it much more pleasant than to be without them.

The

The Windows and Doors, the one or other reſpecting every Coaſt, may be glazed with the beſt and moſt tranſparent Glaſs, to repreſent every Object through it the more ſplendid, with Skreens of printed and painted Sarcenet, to prevent in the day, and ſhutters of thin Wainſcot, in the Night, others from diſturbing your Solitary repoſe.

Alſo you may reap the pleaſure and advantage of the Air from either Coaſt, by opening that ſide of your ſmall Edifice, from whence you would receive it, excluding on the other ſide that which might otherwiſe annoy you.

4. Of Repoſitories for tender Plants.

In the other corner of your Garden or ſome oppoſite place to ſuch pleaſure-houſes, may you erect another of the ſame Form to anſwer it as to your view, which may ſerve as a place to preſerve your tender plants, in during the extremity of the Winter, and it is uſually term'd a *Green-houſe*, becauſe ſeveral Winters Greens are therein preſerved, that will not endure the ſeverity of that ſeaſon, in it alſo may you diſpoſe on ſhelves your dry Roots of Flowers and Seeds, until the time of the Year mind you of interring them.

On

On these small Edifices may you bestow what cost you can afford, and make them (as they deserve to be) the principal Ornaments of your Ville.

5. Of Mounts. It is not unusual to raise a Mount with the wast Earth or Rubbish, you may otherwise happen to be troubled withal, at some convenient distance from your house, on which as on your Terrace-walks you have the advantage of the Air and prospect, and whereon you may erect a *Pleasure* or *Banqueting-house*, or such like place of Repose.

The most famous of this kind is that near *Marlborough*, whether first raised by Art or Nature is not yet determined, however it hath a most pleasant and easie ascent, and from the Summit whereof you have a good Air and a fair prospect.

CHAP.

Chap. IV.

Of Springs, Rivers, Fountains, Water-works, and Grotto's, neceſſary for a Garden.

IT is not to be denied, that a kind and fruitful Soil may produce all ſorts of Plants proper for a Garden of pleaſure, uſe, or advantage, which may render ſuch a place delightful, yet cannot ſuch a Garden ever be ſaid to be complete, nor in its full ſplendor and beauty, without this Element of Water. Wherefore *Rapinus* adviſeth that,

You then who would your Villa's Grace augment,
And on its honour always are intent;
You who employ your time to cultivate
Your Gardens, and to make their Glory great,
Among your Groves and Flowers let Water Flow,
Water's the Soul of Groves and Flowers too.

Beſides the particular uſes you may put

put it into in watring your ſeveral Gardens, it is very pleaſant to have your Piſcaries, Rivulets, Fountains, *&c.* about your Ville.

SECT. I.

Of Springs.

MAny Pleaſant Seats, Villes and Gardens there are, that are very well ſcituate for Air and proſpect, that are of themſelves dry, which defect may be ſupplied from Springs of Water riſing at ſome diſtance, and may be conveyed by Pipes, to ſuch places in your Ville or Garden as you deſire.

Of Pipes for Water. In places where Wood is plenty, the Elm is the moſt proper material to make Pipes withal for the conveyance of water from the Spring to your Garden, not being ſubject to be torn by Froſt as are the Leaden or Earthen Pipes, either of which you muſt be ſure to lay deep enough, below the ſurface of the Earth, that the Froſt may not reach them.

Leaden Pipes are the moſt convenient where Water is to be raiſed to any conſiderable

rable height, being not apt to grow leaky nor to decay, but you must be sure to lay them deep in clay as you can, but not in any mixture of Lime or such like, lest it decay the metal, also you must have a turn-cock at the lowest part of your pipe where must be a passage, that out of it you may lett the Water at the beginning of a Frost, to prevent the Pipes from breaking.

Earthen Pipes may be made of about 3 foot in length and made to fit the one into the other, and as they are laid deep in a soft bed of Earth, Clay or Sand, the joynts may be closed with a cement of quick-Lime, Linsed-Oyl and Cotten-wool, and bound about the joynt with a piece of Leather & a turn or two of pack-thread, but these Pipes are not for forcing the water to any height, being apt to break, but are very necessary cheap and sweet for the conveyance of any Spring without force to the place you desire.

Sometimes it happens that Springs ly concealed in the Earth, which may, if discovered prove very useful in your Ville and pleasant in your Garden, which to discover observe the precepts of *Rapinus*,

Where ſmall declining Hillocks you perceive,
Or any Soyl where Flaggs and Ruſhes live,
Where the fat Ground a ſhiny moiſture yields,
If Weeds and prickly Sedge o'reſpread the Fields;
There hidden Springs with confidence expect,
For Sedgy Places ſtill to Springs direct.

Alſo ſeveral Ruſticks there are, that can direct you to the neareſt Spring being acquainted with the nature of the Soyl and place.

Theſe if they ly above or level with your Garden may be brought by Pipes into it, but if they happen to lye below it, then muſt you erect Ciſterns or Receptacles above your Springs, that they may command your Garden, and raiſe the Water into them by Machins made for that purpoſe moved by men, Horſes or the Wind which when full may ſerve to ſupply your Garden for a certain time, and when expired the ſaid Ciſterns may be again filled by the former means.

SECT.

SECT. II.

Of Rivers.

ALthough ſmall Cryſtalline Springs brought in Pipes may be ſufficient to irrigate your Groves and Plants, and ſupply your Grotts and Fountains and add very much to the ſplendor of your Garden; yet,

——If my advice you take,
In the low Places of your Garden make,
Beſides the other Springs, large Trenches too,
To which from every part the Streams may flow.
For little Brooks and Springs are not ſo good,
Nor pleaſe ſo much as a more noble Flood. Rapinus.

A Fair ſtream or Current flowing through or neer your Garden adds much to the Glory, and pleaſure of it, On the banks of it may you plant ſeveral aquatick Exoticks, & have your ſeats or places of repoſe under their Umbrage. and there ſatiate your ſelf with the view of the Curling Streams and its nimble Inhabitants. Theſe Gliding

Gliding Streams refrigerate the Air in a Summer evening, and render their banks ſo pleaſant, that they become reſiſtleſs Charms to your Senſes, by the murmuring Noiſe, the Undulation of the Water, the verdant Banks and Shades over them, the ſporting Fiſh confin'd within your own limits, the beautiful Swans, and by the pleaſant notes of ſinging Birds, that delight in Groves on the Banks of ſuch Rivulets.

Where ſuch a Stream or Rivulet cannot naturally glide through your Garden but near unto it, it's probable that part of it may be raiſed by ſome Machine, at ſome diſtance from your Garden, and by an Aquæduct conveyed through it, which will be more commodious (the charge only excepted in the bringing it thither) than the natural Current. 1. Becauſe natural Currents are uſually in the loweſt grounds, which are not ſo proper for a Garden, as a declining or ground above the level of the adjacent Lands. 2. For that an Artificial Current is not ſubject to thoſe extravagancies, that the natural uſually are, by over-flowing after haſty Rains. 3. Thoſe waters that are brought by Art are eaſily carried off again, and may be conducted

conducted to several parts of your Garden on the edges of your declining Walks whether they decline little or much, if but little then may Canals be made in the natural Earth, without any danger of decay or wearing, as *Rapinus* observed of the Water running through the Gardens of *Lian Court*.

For by the Gardens side, the Rivers pass,
From no steep Cliff, but down a bank of Grass,

But if your Garden ly on a more declining Bank, then are your Aquæducts to be paved and edged with Stone or Brick, lest the Velocity of the Current by degrees eat away the Earth before it, these Aquæducts may be carried almost level and have their Precipices at several distances, as the form of your Garden will bear: these Water-falls will appear very pleasant if made broad at the end, as the same Poet tells you,

Nor should it less deserve of our esteem,
When from an even Bed diffus'd the stream,
Runs down a polish'd Rock, and as it flows,
Like Linnen in the Air expanded shows.

4. Waters brought in by art may better be confin'd in canals regularly made, and Fish kept in them easier preserved than in the natural, where inundations usually unstock your Piscaries, therefore if you can choose rather to bring a fair Current of Water through your Garden, above the level of the main River, if it cannot be done by an ordinary Aquæduct, yet may it by an Engin placed in the River where the one part of the Water shall constantly raise another for your purpose, the manner of making and ordering whereof is not proper for this place.

——*Vide Systema Agriculturæ.*

SECT. III.

Of Fountains.

Fountains are Principal Ornaments in a Garden, scarce a famous Garden in *Europe* without its *Fountains* which where primarily intended for Bathing and are in the more southern Countries used for that purpose to this day. The *Italians* bestow very great cost in Beautifying them for that use: the French are very prodigal in

in their Expences about Fountains: and ſeveral Curious Gardens in *England* have them; but here only for Ornament, they are generally made of Stone, ſome ſquare others round or Oval, and of divers other forms, ſome flat in the bottom, others round like a Baſon.

Into ſome the Water is caſt by Pipes from the ſides out of the Mouths of ſeveral figures repreſenting Animals or out of the Pipes of *Eurs* of Stone ſtanding on the Brim of the Fountain, or the Water is caſt from ſome *Figure* or *Statue* erected in the middle of the *Fountain*, or from *Pipes* ſtanding upright in the midſt of it.

There muſt alſo be waſt Pipes or Cavities to convey away the Water from ſuch Fountains, which muſt be ſo made that at your pleaſure you may drain your Fountain and cleanſe it, and muſt be of capacity to carry off all the Water as it comes, leſt it annoy your Garden, for the greater quantity of Water you have, the more pleaſant will it appear.

Plenty in Fountains alwayes graceful ſhows,
And greateſt Beauty from abundance flows.

But where neither Springs nor Rivers

can be obtained to complete your pleaſures, yet for uſe & a little fordelight may Water be procured from the Heavens by preſerving the drips of the Houſe and conveying it to ſome Ciſtern made for that purpoſe in your Garden which may reſemble a Fountain, or make a fair receptacle in your Garden for the Water that may be gained from the declining Walks of your Garden or from adjacent Hills, as *Rapinus* directs.

But if the Place you live in be ſo dry,
That neither Springs nor Rivers they are nigh,
Then at ſome diſtance from your Garden make,
Within the gaping Earth a Spacious lake,
That like a Magazine may comprehend
The aſſembled Floods, which from the Hills deſcend.

Here

Pg53 F. H. Van. Hove fec:

Here Follows a

DESCRIPTION

Of Several Sorts of

FOUNTAINS.

I. THe *Ball raiſed by a Spout of Water.*

II. *The Water repreſenting a double Glaſs, the one over the other.*

III. *A Dragon or ſuch like, caſting Water out of its mouth, as it runs round on the Spindle.*

IV. *A Crown caſting Water out of ſeveral Pipes as it runs round.*

V. *A Statue of a Woman, that at the turning of a private Cock, ſhall caſt Water out of her Nipples into the Spectators Faces.*

VI. *The Royal Oak with Leaves, Acorns, and Crowns dropping, and ſeveral ſmall ſpouts round the Top.*

VII. *The Ciſtern into which the Water*

flows by the Pipe, A. *the Air issueth out at the pipe* b b b. *the ends whereof make the Musical sounds in the Trough of Water at* C. *which is supplied with Water by the Pipe* D. *which in time dreins the Cistern, which wast Water precipitates into* E. *and from* E *into the common Drein.*

These Waters are to be prefer'd for the irrigation of your Plants to any other, and in case you make your Cisterns well, and cement the joynts of your Stone with *Parisian Cement*, or with our own Lime compounded with Linseed Oyl, they will retain the Water for a long time.

SECT. IV.

Of Water-works.

BEsides those natural courses that are proposed, for the leading the water from the one place of your Garden to the other, after it is entred into its limits, there are several ways of ordering it, where it is either naturally or artificially advanced above the level of your Garden.

The

The docile Streams will any ſhape put on,
A Thouſand different courſes they will run. Rapinus.

Therefore the Water muſt be conveyed from ſome *Ciſtern* or Conduit, ſtanding above your Garden at ſome diſtance by Pipes, or elſe it muſt by ſome Artifice be raiſed into a *Ciſtern* of Lead over ſome Lodge or *Grot* in your Garden: That from thence it may by ſmaller Pipes be ſecretly conveyed to your ſeveral works.

As to the Fountains where it may be caſt through various figures as before was hinted in the laſt Section.

Or it may be made to riſe in the midſt of a Fountain or your Grotto, through the branches of an Artificial Tree, each Sprig being hollow that it may continually drop with Spouts on the top, for the erecting of greater quantities of water.

Or it may riſe in one ſmall upright Stream, carrying a *Ball* of wood on it, which being exactly round and placed on the mouth of the Pipe, and the Water by the opening of a ſtop-cock made for that purpoſe admitted by degrees, the Ball will riſe and be ſupported by the Spout of water, to five ſix or ſeven foot high, after

the ſame manner as a ſingle peaſe may be elevated by your Breath on a ſtraw, but in caſe your Ball be apt to fall, then may you perforate it through the Centre ſmoothly and exactly in the middle, and place this ſmall hole directly on the middle of the mouth of the Pipe, and ſo raiſe the *Ball* by degrees, and the ſmall ſpout of water that paſſes through the Centre of the *Ball*, will preſerve it in its due poſture.

By a *Copper Cylinder* made to fit on the top of the Pipe, out of which the water violently flows, to take off and on at pleaſure, may you ſometimes make the water reſemble a large *Glaſs* inverted, by placing a flat piece of Copper on the top of the *Cylinder*, and leaving only a narrow circular paſſage under it for the water freely to flow out of it on every ſide. Another Pipe or Cylinder of a leſſer ſize, made to riſe off the middle of the ſaid flat piece of Copper or Cap, with a like Cap on the top of it and a paſſage left as before, will cauſe the water iſſuing out of both theſe Cylinders the one over the other, to preſent a *Glaſs* within a Glaſs both inverted.

Alſo *Crowns*, *Birds*, *Beaſts*, made of light Braſs

Braſs or Copper, hollow and eaſie to turn on a Cylinder, the one end of the Cylinder is to be ſet on the top of the Water Pipe, the other end to force the Water with certain thin Veins in the inſide of your hollow Figure, which will make it to move ſwiftly about, ejecting the water out of the ſides or Mouth of the Figures in its motion, which is very pleaſant to behold.

Secret Pipes may be under the Ground, the ends not appearing above it, that when any Ladies unawares or caſually walk or ſtand over them, by the turning of a ſtop-cock you may force the Water upright under their Coats to their ſudden ſurprize.

You may alſo place on Pedeſtals of about three foot high ſeveral Figures at about three Foot diſtance ten or twenty of a ſide: the interval between theſe Figures may be 8 or 10 Foot over. Through theſe Pedeſtals and Figures ſmall Pipes muſt be brought, that the Water may out of the Mouth of the Figures be ejected into the Air, the one Figure directing it towards its oppoſite Figure, beyond it and a little ſideways, ſo that at the turning of a ſtop-cock, each Figure ſhall caſt out a ſtream of water over like a rain-bow, that you may walk under theſe Spouts as under

ſo

so many Arches without any drop falling on you.

But that which is very delightful is the singing of the Nightingal exactly imitated by the motion of the Water, and is thus performed, in some Cavity of your Grott or other edifice where you desire at any time to hear this Musick, you must place a large Cistern of Lead containing ten, twenty or thirty Gallons, as you please: This Cistern must be well closed on every part (except the useful passages for Pipes) into it: near the top must the Water be let in freely through a Pipe of about an inch diameter, then you must have also near the top two, three or four small Pipes issuing out, tending a little downwards, at the end of which you must fix your Pipes made of Brass or other metal, made before you fix them like an ordinary *Fistula* wherewith Children exercise themselves in their pastimes, so that when you try it with your Breath and hold the lower end in Water it shall pipe and chuck as the Nightingal sometimes doth, you may make two, three or four of these of several sizes, the biggest not large, and they will give some distinction in sound these being fixed to the ends of the small Pipes issuing out of your Cistern

ſtern and the lower ends of them dipping into a trough of Lead a little below the bottom of the Ciſtern; when by the turning of a ſtop-cock the Water flows into the Ciſtern it expelleth the Air through theſe Pipes which give you your deſired Muſick, until your Ciſtern be full, then muſt you ſtop the Cock that the Ciſtern may empty it ſelf again and be ready for another time.

The Pipe through which it empties it ſelf may be at the bottom of the Ciſtern of about the diameter of one third part of an inch, ſo that the Pipe that ſupplies the Ciſtern with Water muſt of neceſſity be of Capacity ſufficient to afford Water enough for this under Pipe, and to enforce Air for the muſical Pipes, therefore this emptying Pipe you may leſſen as you find occaſion.

The Water that runs through this lower Pipe may deſcend into the Trough that is under the Muſical Pipes, to ſupply that with Water.

Inſtead of this lower Pipe, you may have a Siphon made in your Ciſtern the inner Foot of it to reach the bottom of the inſide, the neck thereof to be near to the top of it but not altogether ſo high, the outer

outer foot of it somewhat lower than the bottom, that when the water flows into the Cistern, and stops the inner foot of the Siphon, the Air forthwith gives you your Musick until the Cistern be full, then of its self the water passes through the Siphon until the Cistern be empty. In this way less water will make your Musick, because there is no decrease of it until the Cistern be filled, but then you must not desist until it be full, else it will not flow out of the Siphon. You must also supply the Trough before your Musical Pipes with water from some other Pipe, therefore the former way is the more facile.

By this means may you make many Musical Artificial sounds, and to continue in proportion according to the quantity of your Water and capacity of your Cistern, the water that flows in wast from it, being made to fall from one precipice to another, which with its murmuring noise intermixed with the Musical Pipes, makes an excellent charming harmony, especially none of it being in view, but concealed in Rock-work made for that purpose.

SECT.

SECT. V.

Of Grotto's.

IT oftentimes happens that in these *Northern Climes*, the *Æstival* heats are more troublesome than they are nearer the *Zodiack*, the Sun continuing here longer above the *Horizon* in the Summer season, than in those parts, which occasions that intemperancy that many times we are sensible of, for as we have less of the presence of the Sun in the Winter, so have we that defect supplied in the Summer.

But those that inhabit more southerly, and have the Sun more perpendicularly over them, are more sensible of the acute heat of that bright Orb about the middle of the day, generally than we are, and therefore about the heat of the day, they usually sequester themselves from their ordinary occupations, and betake themselves to their shades and cool places of Recess for some few hours.

Such that have convenient places in their Villes, make themselves Grotto's or Caves in the Earth for that only purpose,

on

on which ſome have beſtowed ſo much coſt and labour that thoſe Grotts have been the object of admiration of, and part of the Subject of ſeveral Hiſtories written by ſeveral Travellers and Strangers, as are their Baths and Fountains.

For the ſame reaſon may our Grotts be as neceſſary for us, to repoſe our ſelves in the time of our Summer ſaint heats, although they are not here ſo conſtant every year as in thoſe parts, yet are they leſs tolerable, for want of theſe nocturnal breezes they uſually enjoy.

Therefore either in the ſide of ſome declive of a Hill, or under ſome Mount or Terrace artificially raiſed, may you make a place of repoſe, cool and freſh in the greateſt heats. It may be Arched over with ſtone or brick, and you may give it what light or entrance you pleaſe. You may make ſecret rooms and paſſages within it, and in the outer Room may you have all thoſe before mentioned water-works, for your own or your friends diverſiſements.

It is a place that is capable of giving you ſo much pleaſure and delight, that you may beſtow not undeſervedly what coſt you pleaſe on it, by paving it with

Marble

Marble or immuring it with Stone or Rock-work, either Natural or Artificially resembling the excellencies of nature. The Roof may be made of the same supported with pillars of Marble, and the partitions made of Tables of the same.

The most famous of this kind that this Kingdom affords, is that *Wiltonian Grotto* near unto *Salisbury*, on which no cost was spared to make it compleat, and wherein you may view or might have lately so done the best of water-works, far excelling what *Rapinus* thus sings of late *Richlieu*'s Palace in *France*.

Here variously dispos'd the Fountains run,
First headlong fall; then rise where they begun,
Receive all Forms, and move on every side,
With horrid noise, Chimæra *gaping wide,*
Out of her open mouth the Water throws,
For from her Mouth a Rapid Torrent Flows,
From her wide Throat, as Waves in Circles spout,
A Serpent turning sprinkles all the rout.

But they that cannot command the water to Crown the pleasures of their Gardens,

dens, yet are there few that cannot find some convenient place for this purpose, it being as necessary in them to avoid the liquefying Air, as in other places the unpleasant Breezes.

CHAP.

Chap. V.

Of Statues, Obelisks, Dyals, and other invegetative Ornaments.

IN all places where there is a Summer and a Winter, and where your Gardens of pleasure are sometimes clothed with their verdant garments, and bespangled with variety of Flowers, and at other times wholly dismantled of all these; here to recompence the loss of past pleasures, and to buoy up their hopes of another Spring, many have placed in their Gardens, Statues, and Figures of several Animals, and great variety of other curious pieces of Workmanship, that their walks might be pleasant at any time in those places of never dying pleasures. 1. *Statues.*

Herein the ancient *Romans* were excessively prodigal, sparing of no cost, to adorn their avenues with curious figures for their Winter diversions, as well as with rare plants for their Summer delights. Which vanity (although one of the most excusa-

ble) is descended on the *Italians*, whose Gardens are the mirrors of the world, as well for those ornaments as for their excellency of the Plants that are propagated in them.

This mode of adorning Gardens with curious workmanship is now become *English*, how many Statues made by excellent Art, are there to be seen in his Majesties Gardens, and in the Gardens of divers of the nobility of *England*? But what great pity is it that in many places remote from Cities and great Towns, these Statues should drive out of their view, those natural Beauties that so far exceed them?

Much more ornamental are Statues placed in Groves and Shades, and in or near your borders of the choicest Plants than on the naked surface of the Earth, which beget not that surprise in the Spectators, as the other.

Statues are commendable in the midst of Fountains, and Green Squares, in Groves, and at the ends of obscure walks.

2 *Obelisks.* In the room of Statues in the midst of your Green Squares, Obelisks or single Columns may not be improper, so that the Workmanship be accordingly. Neither can there be a more proper use for an obelisk

lisk, than to support a Globe with its Axis duely placed respecting both Poles, and its circumference on the Equinoctial Line, exactly divided into twenty four parts, and marked with twice twelve hours, that on it at a distance by the shadow only of the Globe on its self, you may discern the hour of the day, and observe how the Day and Night, and Summer and Winter happen throughout the Universe.

Many Dials of various and curious Workmanship are made, and may be placed on Pedestals in the midst of the Squares instead of Statues, which better become the shades.

Dials of Glass, were it not for the casualties they are subject unto, pre-excel any any other for Beauty, especially the Globe with its Axis through the midst and duely elevated with small Beads on it, placed at their due distances according to the lines of the Celestial Globe, painted on the superficies of your orbicular Glass, which will not only give you the true hour of the day, but all other variations that a Dial can direct: But more of these things in another place. 3. *Dials.*

Other ancient Ornaments of a Garden are Flower-pots, which painted white and 4. *Flower-pots.*

placed on Pedeſtals, either on the ground in a ſtreight line on the edges of your Walks, or on your Walls, or at the corners of your Squares, are exceeding pleaſant.

They are uſually made of Potters Clay and burnt, which when full of Earth and frozen in the Winter are apt to break, unleſs you place another ordinary pot of Earth in the inſide of it wherein to plant your Flowers, you deſign to propagate in them.

But to prevent that caſualty of breaking, ſome are made of Lead which are much to be preferred.

5. Of an Aviary. One of the pleaſures that may be eſteemed belonging to a Garden is an Aviary, which muſt be near your houſe, that you may take ſome delight in it there as well as in your Garden, and may in all ſeaſons take care of its inhabitants, as for its bigneſs, manner of making and ordering, it is not proper in this place to be diſcourſed of, we being rather for an Aviary at large, that the whole Garden with its Groves and Avenues may be full of theſe pretty ſingers, that they may with their charming Notes, rouze up our dull Spirits that are too intent upon the cares

cares of this world, and mind us of the Providence, the great God of the Universe hath over us, as well as these Creatures.

Lib. II.

Of the divers Trees, Flowers, and Plants, that beautifie and adorn a Garden.

Chap. I.

Of Trees for Ornament and Shade.

HAving lightly passed over the Scite, Form, Security and dead Ornaments of your Garden; it is time now to give you an account of such Vegetating Ornaments, that are proper and very well becoming the Gardens of the most curious. And because the *Cypress* is the most beautiful and most celebrated Tree, I shall begin with Perennial Greens.

SECT.

SECT. I.

Of Winter Greens.

OF all the Trees that have been propagated in our *European* parts, none have yet merited that esteem as the *Cypress* hath done, it being the most uniform, streightest, and most slender of any other, preserving its Verdure throughout the Year. 1. *Of the Cypress.*

Its natural Country is *Candia*, where (as *Pliny* writes) if a man plow the ground, and not sow it with some other thing, *Cypresses* will come up, and presently shew above ground, from whence they have been spread into the most parts of *Europe*, so far as the extreme cold will give them leave.

Their Seed seldom or never ripens here in *England*, but such as you have from Foreign parts, you must sow about the beginning of *April*, which when come up and carefully watred and weeded, you may remove.

These Trees may be either planted as Standards, or in Hedges and clipped as other tonsil Hedges usally are, if you intend

them for ſtandards, at about three or four years the middle ſhoot ought to be cut off neer the top, and the whole tree kept cut into a Pyramidical form, and not bound as is the uſual cuſtome, only clipp them not late in the Year, leſt the Froſt prove too fierce and kill your Trees.

For if they are not cloſe bound but clipt, and ſtand not in a cold moiſt Ground they will indure the hardeſt Froſts and ſharpeſt Winds: for I have known many that ſtood in the loweſt part of the Garden killed with the extremity of cold, when others that ſtood on a *Terrace* more obvious to the cold Winds, eſcaped, and for no other reaſon as I could judge but their dry and healthy Soil they grew in.

2. *Of the Laurel.* As the Cypreſs for its Beauty, ſo the Laurell for its Glory hath been in great eſteem with the Ancients, whoſe branches have crowned the Heads of Emperors in their Triumphs, and thoſe that were Victors in War or any Solemn Games: the *Laurell* branches are alſo Emblems of Peace, and of Pre-excellency in any ingenious Science or Enterpriſe, the ancient *Romans* attributed unto it an extraordinary property it had againſt the evil effects of Thunder and Lightning and therefore planted

planted it near unto their Houſes and Lodgings.

It is one of the beſt Ornamental Trees you can plant either for beauty or ſhade, it will Cloath your moſt ſhady Walls and will endure the moſt ſcorching beams of the Sun, it will mount to twenty or thirty Foot in height and be content to be humble and tonſil, no Weather will annoy it, it delights moſt in moiſt Ground;

In watry Vales, where pleaſant Fountains flow,
Their Splendent Leaves the Lovely Laurels ſhow.

And agrees beſt with a cool ſhady place which is equal to a watry.

They grow tall and bear great plenty of Berries from which the Trees are eaſily propagated, or from layers or ſlips, ſett in a cold moiſt place.

The *Laurus Tinus* is a Shrub yielding ſweet ſcented Tufts of white Bloſſoms in the Winter as well as the Summer, is eaſily propagated from ſuckers or layers, and deſerves a place amongſt the beſt of your perennial greens.

The *Bay-Tree* our old Engliſh plant is a fine

a fine odoriferous Tree, but worn out of that great esteem that formerly was had of it, by the more beautiful and hardy Laurel.

3. *Of the Phylirea.* Few Greens exceed in beauty either in Branch or Leaf the *Phylirea*, which spreads so fairly and neer the ground, and rises to that height, and so easily managed with the shears, that it is esteemed one of the most pleasant Plants that nature yeilds, it is very hardy and endures our generally most severe Winters, having never known them nip'd with fierce cold but once (*Anno* 1663.) and then the Branches being for the most part cut off, the Tree reassumed its former Lustre.

It is raised of Seeds, and may be encreased by Layers and sometimes by Slips, it will not easily bear a remove till the coldest seasons are over.

There are two sorts of it, the one with a smaller and more edged Leaf than the other, which yields great plenty of blossoms in the Winter which last until the Spring, but the barren Tree is the more beautiful.

These Trees may be cutt into any form high or low, in Hedges or in single Trees, and will cover a Seat or Bower in a short time,

time, and more neatly than any Tree whatsoever.

A Species of the same is the *Laternus*, a hardy pleasant Shrub, not aspiring to that height as the Phylirea, but is apt for Hedges, and easily managed. *4. Of the Laternus.*

Most of the ancient Gardens of England were formerly beautified with this never dying Box, because you might have reduced it to any form or shape high or low, but by reason of the ill Savor emitted from it, and by its spreading Roots continuing long in a place sterilizing the confining Earth, it is now banished our Gardens. *5. Of the Box-tree.*

Our Modern Planters have brought into our Gardens to adorn our Walks, the *Eugh* Tree, which Growing tall and stout against all Weathers, and its small twigs sticking close to the Trunk, clothing it alwayes green, no Sun nor shade offending it, is one of the most ornamental Trees you can desire. *6. Of the Eugh-tree.*

I should undervalue the judgment and opinion of our best Arborist Mr. *Evelin*, if I should not numerate the *Holly* amongst the most select of our Hortense perenniall Greens which hee esteems to be the most incomparable for *Use*, *Defence*, *Sight* and *Ornament*, *7. Of the Holly.*

Ornament, I need say no more of it, seeing his learned Pen hath sufficiently emblazoned its fame.

8. Of the Firr. The Firr-Tree is rather for the Woods, than for the Garden, yet by reason of the slender and aspiring trunk of the streight Firr and the facil keeping and preserving its Branches in a compleat Circular order, it doth very well become a Garden, planted at the Corners of your squares, or in direct lines at a little distance from your Walks.

Having one of these Trees whose top was perished, I clipt it with my sheers, and reduced it to a fine Conick shape; and find it as easy to be managed with the sheers, as any other Plant.

They are easily propagated from the seed taken out of the cloggs and sown in March, and very well endure a remove, all other sorts of Firr and Pines, besides the streight small leaved Firr are to be excluded your Garden of pleasure being not capable of being reduced to a compleat form.

9. Of the Cedar. For the rarity of it more than for its beauty may the famous Cedar find a place in your Garden, the name whereof is sufficient to revive those stupendious relations of

of the Magnitude, Durableneſs, Excellency and Virtues of that moſt ſacred of Trees.

Not unbecoming your Garden, is the *Ilex* or ever Green Oak which is hardy, though ſlow in growing, and propagated from its Seed or by layers. 10. *Of the Ilex.*

The *greater Tree Stone Crop* is a beautiful green not common but raiſed from layers and preſerved in ſome Gardens. 11. *Of Tree Stone crop.*

The *Strawberry Tree* as it is ſo termed from the red berryes it uſually bears, although difficultly raiſed from Seeds or Layers and with the like difficulty removed whilſt young, yet thrives very well in the warm part of your Garden, adding much beauty to it by its green leaves all the Winter, and its Berries in the Autumn. 12. *Of the Arbutus.*

One of the moſt Vulgar yet moſt uſeful and neceſſary Greens is the *Roſemary*, a Plant natural to many places in *Spain* but here nouriſhed in the warmeſt places of our Kitchin Gardens, I have obſerved in ſome Country Gardens a dwarf kind of *Roſemary* kept ſheered that hath been exceeding comely, the Plant is eaſily managed, did not the moſt ſevere colds deſtroy it, but that dwarf kind is the more hardy. 13. *Of Roſemary.*

The large double *Roſemary* is the more Ornamental

ornamental to a Garden; but that with a double bloſſom the more rare.

14. *Of Pyracantha.* The *Pyracantha* or ever green Hawthorn is a compleat Tree for a Fence, its Thorns being ſtrong and ſharp, it is alſo very beautiful when its Berries are ripe, which are of a Coralline red, its Leaves ever green but not very thick.

15. *Of Arbor-Vitæ.* The *Arbor vitæ* ſo called from its ever green and hardy leaf, may be planted to make up your number of Greens, for its rarity, but not for its beauty, any more than the *Savin*, which is much like it.

16. *Of the Celaſtrus.* The *Celaſtrus* or Staff-tree, bearing a few Green leaves over the winter, and as Mr. *Rea* adviſeth, is fit to be mixed with *Pyracantha* for the making of the ever green hedge.

Theſe ever green Plants have in them a ſtrong reſinacious Juice, that fortifies them againſt the cold, and is the cauſe of the continuing of the Leaf ſo long on the Stalk, as may be obſerved in the *Firr* and *Pine*, what an abundance of that Terebintine Sap do they contain, enduring the moſt fierce colds the Northern Climate yields, the *Cypreſs* and the *Roſemary* both yield a very hot and reſiny ſap.

The *Holly* affords us out of its bark, that glutinous

gluttinous lime that ensnares the heedless Fowl, which diffused naturally into its leaves, enables them against all the inconveniencies of Winter and Cold. The *Phylirea* hath a very strong Sap that preserves it, as appears by its Blossoms affording so much matter for the *Bees* to feed on in the Months of *January* and *February*. All the other Winter Greens have more or less of the like resinacious and glutinous *Sap* or Juice, that is not so easily preyed upon by extreme colds.

SECT. II.

Of Variegated or Gilded Leafed Plants.

THese Perennial Greens are very Ornamental, planted in their proper places of your Garden and Avenues, by reason of their perpetual Verdure, that the Winter that seems elsewhere most barren, here amongst these Greens appears like a perpetual Spring, yet must these give place to the most beautiful of Trees and Shrubs, of the same kinds (as to their durableness) by reason of their variegations, but much excelling them. For

For what can be more pleasant than to have Groves or Walks (when the Flowers that are but for a Day are retired) apparrelled with Gilded party-colour Garments, some with yellow and Green, others with white and Green, emulating the two royal Metals that by the Gilders hand adorn the Palaces of Princes. The most excellent of all which gilded Plants is the *Holly* whose Bark as well as Leaf is variegated with a bright yellow, the more yellow the Leaf is the more beautiful is the Plant, if Vulgar *Green Holly* be so glorious, and refreshing an Object as Mr. *Evelin* hath Characterized it to be, then certainly the same with a due mixture of a bright yellow must pre-excel. In fine whosoever hath once seen this Tree will not think any *Perennial* green equal to it, for it is like the true scarlet dy, which present debaseth all other Colours.

1. *Gilded Holly.*

The Gilded Laurell is a very pleasant Tree although inferiour to the *Holly*, for want of that Oriental Verdure and more polite Leaf, but this Plant is more rare to be obtained than the Gilded *Holly*.

2. *Gilded Laurel.*

Of *Phylirea* also there is a sort that is much varigated with white and is very pleasant, as the like there is of *Alaternus* which

3. *Gilded Phylirea and Alaternus.*

which is not altogether so hardy as that of the *Phylirea*, yet both most worthy of your care.

The Leaves of *Box* are on some Trees Gilded with an edge round each of them with yellow, but these Trees do not annually produce all their Leaves Gilded: sometimes they are green, and sometimes Gilded, yet are these Trees not to be wanting in your *Golden Grove*. 4. *Gilded Box.*

There is besides the *Rosemary* that is Gilded with yellow, a sort of it variegated with white, very delightful to the Eye and not so common as the yellow, but both these are to be preserved under warm Walls or other fences to secure them from the too severe Winds. 5. *Gilded Rosemary.*

The *Periwinckle* is a low creeping Plant, some bearing white, some blew Flowers, Growing wild in many places and scarce worthy of a place in a Garden except for the covering the Ground in the Shades of your Groves and Avenues, with its ever green and running Branches, but the *Gilded Periwinckle* whose Leaves are exceeding well variegated much resembling the *Gilded Phylirea* or *Alaternus* is as compleat an Ornament for clothing the Earth of your *Golden Grove*, as any of the Gilded 6. *Gilded Periwinckle.*

Trees are for the more lofty part of it.

7, *Gilded Lilly.*

And although your Gilded Trees are moſt becoming in a Grove or Walk, and the Periwinckle be proper for a humble Ornament, yet ſome Plants of a middle rank or degree may not unbecome ſo ſplendid an Object; of which none can be more ſuitable than the Lilly whoſe Verdant Shining, Pale-green Leaves are curiouſly painted by Nature's Pencil with yellow, appearing at a great diſtance as well as neer very beautiful, theſe Leaves from the Ground to the top of the Stalk, from the Spring to the Autumn, being much more comely than the Bloſſom, which is the fair white Lilly.

8. *Gilded Night-ſhade and Mugwort.*

It is known to all Naturaliſts that the beſt garden ground is moſt prone to weeds which are its Spontaneous productions, and ſeeing that Weeds are expected in our Grove as well as in our Garden, it were better that it were in part ſupplyed for want of Gilded Leaved-flowers with *Gilded Weeds*, whereof the *Night-ſhade*, otherwiſe a noiſome Weed, but with its variegated Leaves, and here and there thinly diſperſed, with *Gilded Mugwort* another Weed of the like nature, would make a good mixture with the other

richer

richer dyes, like the ordinary Colours in a Picture which ſerve to illuſtrate the more excellent.

Some other ſorts of Gilded Plants there may probably be; but theſe are all that I have hitherto obſerved. As theſe have been caſually met withal, and from them others have been raiſed, ſo by the ſame reaſon may other ſorts be diſcovered that yet have not been obſerved.

For travelling through ſome part of *Glamorganſhire* and diſcourſing of theſe *Variegated greens*, one of that country aſſured me that in that County was a very large *Holly* with all its Leaves curiouſly Gilded, growing wild in a Wood. which was not unlikely, for from the Woods they firſt came, but that which was moſt ſtrange was that the ſame Tree ſhould be neglected, and not a great number of Plants raiſed from it.

The reaſons why ſuch variety of colours ſhould appear in the Leaves of Trees and Plants is not to be diſcovered, ſeeing that we may obſerve the like in the various colours of ſome ſorts of Beaſts and Birds, and they as well as theſe are alſo apt to degenerate. And as theſe curious Plants are by accident, or ſome ſecret

inclination of nature discovered unto us, so they are the more to be valued, and on them may we the better bestow our delight and admiration.

9. *The Embroidered Elder.*

Thus will we conclude this Section, of monstrous curiosities in the leaves of Plants, with that of the *Elder-tree*. It happened that about two years since, (being *Anno* 1674.) A Gardener near *London*, by accident discovered in a hedge an *Elder-tree*, whose Leaves seem'd to be embroidered, by the swelling of the veins that spread themselves throughout the Leaf, and appearing of a different colour from the rest of it, they being of a curious texture, made them appear to the Eye most beautiful and rare, which Tree he transplanted into his Garden, as no small curiosity.

SECT. III.

Of other Trees propagated for their Beauty and Shade.

1. *Of the Platanus.*

BEsides these Perennial Greens and other rarities in nature that seem to take up so large a room in your Plantation,

tion, yet are there other Trees that in the Spring and throughout the Summer, do very much adorn your *Groves* and *Avenues*, and cool and refresh those that delight to walk in them in the heat of those seasons. The most principal of which is the *Platanus*, a Tree so much admired by the Ancient *Romans*, that they preferred them before any of their own Native productions, and that for their Shades only, it so absolutely excluding the Beams of the Sun in the Summer, and admitting them in the Winter. The Branches are but thin and slender, the Leaves broad and of colour pleasant, the Tree groweth large. *Pliny* records that in his time, a *Plane-tree* was of that bigness that being hollow within, eighteen persons usually sate on Benches in it, and supp'd with *Licinius Mutianus* its owner. This Tree delights in Water: for the Tree that grew to that bigness, had a cool Fountain adjoyning to it, and those that had not so convenient a place for it, yet it seems by *Pliny*, out of their extraordinary affection to it, irrigated it with better Liquor. He also tells you of another that the Emperor *Caligula* had in his Ville, in which was a capacious Room, that fifteen persons might

ſit at a repaſt, and yet ſpace enough for their Servitors to wait on them. In truth, the World doth not yield a more beautiful Tree for ſhade than the *Plane*. It grows and proſpers well if planted in a moiſt ground, or be conſtantly watred whilſt it is young, and will ſoon arrive to your deſired bigneſs.

2. The Tilia.

Unto the *Platanus*,

High ſhooting Linden, *next exacts your care,*
With Grateful Shades, to thoſe who take the Air.

This Tree ſeems to contend with the *Platanus* for beauty and ſhade, only its Leaves are not ſo fair, but for its conick or pyramidical Form it exceeds moſt Trees, and for its ſweet ſcent, wherewith it perfumes the Air in the Months of *July* and *Auguſt*, there is no Tree comparable to it of that magnitude. The Bees will teſtifie it, who in innumerable multitudes gather on the rows of theſe Trees when they are in bloſſom. They are reducible almoſt to any form, if planted at a diſtance they ſpread, if near they aſpire. They delight in moiſt and good ground, and are very quick

quick of growth. The many large Avenues planted of them in moſt places, ſufficiently demonſtrate their beauty, ſhade, and flavour.

The *Horſe-Cheſnut* for the beauty of its Leaves in the Spring, and the complete form of its Bole, is not unworthy of a place amongſt the beſt of Trees for Shade, and Ornament. This Tree is very lately made Engliſh, being brought in its ſeed or Nuts from *Conſtantinople*, it proſpers very well here in good light Mold, its buds all the Winter and until it ſprings, are covered with a ſhining glutinous matter or Gum, and about the beginning of *May*, it uſually makes its whole Years ſhoot in eight or ten days, and then dilates its Leaves, more pleaſant than which ſcarce any Tree yields. 3. *The Caſtanea Equina.*

Chriſts Thorn ſo named, for that it is ſaid to be the ſame wherewith our Saviour was Crown'd at *Jeruſalem*, near which is the natural place for its growth. This Tree may be placed in your Garden as a rarity, as may that which is yet a greater wonder called 4. *Paliurus.*

The *Glaſtenbury-thorn* being in appearance a Vulgar white Thorn, yet budding and yielding plentifully its bloſſoms in *December*. 5. *The Glaſtenbury Thorn.*

cember. I have for ſeveral years obſerv'd it in Bloſſom at *Chriſtmas*, ſometimes it bloſſoms before if the Weather be mild, but if the cold be very ſevere it will retard it: thoſe Bloſſoms are ſucceeded by Berries and Leaves, although Winter, as the ordinary white Thorns are in the Summer. They that read the divinity of the Monaſtery of *Glaſtenbury*, may the more eaſily believe the report of this Tree, that by its bloſſoming on the twenty fifth day of *December*, it doth not only indicate unto us the very day of our Saviours Nativity, but condemns our ſloth and contumacy in not rejoycing with it at ſo glorious a diſpenſation.

This Tree flouriſhed many Years in *Wilton* Garden near *Salisbury*, and I ſuppoſe is there yet, but is not altogether ſo exact to a day as its original from whence it came was reported to be. it's probable the faith of our Anceſtors might contribute much towards its certainty of time. For imagination doth operate on inanimate things as ſome have obſerved.

Thus have you a brief account of the moſt delightful pleaſant and ornamental Trees wherewith to beautifie your *Garden*, *Avenues* and *Groves*, which are ſhady and

and cool receſſes from the noiſe and cares of the world, and the hot gleams of the Sun, and are an artificial *Epitome* of the larger *Woods*, *Forreſts*, and *Groves*, ſo much celebrated by the Ancients, who attributed unto them moſt divine honour.

Here you may in a ſmall Room and at an eaſie expence, reap the advantage of thoſe more ample poſſeſſions.

Thus bleſt is he, who tir'd with his affairs,
Far from all noiſe, all vain applauſe, prepares
To go, and underneath ſome ſilent Shade,
Which neither cares nor anxious thoughts invade,
Does for a while himſelf alone poſſeſs,
Changing the Town for Rural happineſs,
He, if he pleaſe, into the Groves *may ſtray,*
Liſten to th' Birds, which ſing at break of day. Rapinus.

SECT. IV.

Of the Propagating and Planting the ſaid Trees.

THe ſeveral Trees before mentioned, are variouſly propagated and removed at various times, being many of them *Exoticks:* And therefore the nature of the Climate is to be conſidered.

Such

Such of them that are natural to this, or a more Northerly Climate, may be removed at any time of the Winter, but the nearer the Spring the better, and are generally raiſed of ſeed, as the *Holly*, the *Eugh*, the *Firr*, the *Pyracantha*, and the *Glaſtenbury-thorn*. The *Lawrel*, the *Bay*, the *Tilia*, the *Caſtanea Equina*, although raiſed by layers as well as by ſeeds, yet will endure a Winter removal.

The *Cypreſs*, the *Pine*, the *Cedar*, and the *Celaſtrus* are more tender, and although they are raiſed of ſeed only, yet ought they to be removed in the warmth of the Spring about *March* or *April*. As alſo the Plants, Slips, or Layers of the *Phylirea*, *Laternus*, *Ilex*, *Arbutus* and *Roſemary*, whether from ſeed or Layers, becauſe they are brought hither from a more ſoutherly Country.

The *Slips* or *Layers* of all your *Gilded* Plants, deſerve your care in removing them at the Spring, or ſuch times as the plain Trees of the ſame kind ought to be.

The *Box*, the *Greater Tree ſtone-crop*, *Arbor Vitæ*, *Savin*, *Platanus*, and the *Paliurus*, are encreaſed by Slips and Layers only, which muſt be layd or ſlipped in the

the Spring, and (except the *Paliurus*) may be removed all the Winter, the *Paliurus* only in the Spring.

It is obſerved that it is the beſt way of planting the *Box*, to ſtrip away the leaves from the Slip, and not to wind the Stem but to ſet it whole without winding.

It is alſo ſaid that every ſlip of a *bay-tree*, will grow if ſet in *March*, the great Leaves being ſtript off, but they muſt be ſhaded and ſometimes watred if need require, elſe they will not ſo eaſily take root.

The Gilded Trees or Plants muſt be encreaſed by Layers, Slips, or Graffs, for it is obſerved that by raiſing of them from Seed they degenerate.

CHAP.

Chap. II.

Of Flower-trees.

After your *Garden*, *Avenues*, and *Groves* are reduced into ſuch form as you deſire, and thoſe adorn'd ſo far as neceſſarily they ought to be, with thoſe graceful and immortal *Greens* and other pleaſant Trees yielding ſhade and delight, it then behoves you to furniſh thoſe intervals that remain, and the borders of your Walks with Flowers, the wonders of Nature for the richneſs and variety of their Colours, Scents, Forms, and Seaſons. Amongſt all which thoſe Shrubs or Trees yielding ſo great a variety of thoſe objects are moſt to be prized, and of theſe is the *Roſe* to be preferred.

SECT. I.

Of the various kinds of Roſes.

There is no Flower-bearing Tree that yields ſo great variety, nor any Bloſſoms ſo beautiful as the Roſe, nor do they

they only adorn but perfume your Gardens.

Now I perceive from whence the Odours flow,
While on the Roſes kinder Zephyrs Blow.
Out of the Prickly Stalk the Purple-Flower,
Springs, and commands the Vulgar to adore,
The Garden-Queen doth now herſelf diſplay,
Soiling the Luſtre of the riſing Day.

Between the Tulip and the Gillyflower, they are the greateſt ornament to a Garden whereof the *Yellow Province Roſe* is the moſt beautiful where it brings forth fair and kindly Flowers which hath been obtained by budding a ſingle *Yellow Roſe* on the ſtock of a flouriſhing *Francford Roſe* neer the ground, when that ſingle yellow is well grown in that branch, inoculate your double yellow Roſe, then cut off all ſuckers and ſhoots from the firſt and ſecond, leaving only your laſt, which muſt be pruned very neer, leaving but few buds, which will have the more nouriſhment & yield the fairer & more entire bloſſom. 1. *Of yellow Roſes.*

This Tree or a layer from a Roſe of the ſame kind delights moſt and blows faireſt in a cold moiſt or ſhady place and not againſt a hot Wall.

The

The ſingle yellow Roſe is ſcarce worth the Planting except for the uſe aforeſaid.

2. *The Auſtrian Roſe.* The neereſt in Colour to the former is the *Auſtrian Roſe*, being but ſingle, yet in much eſteem for its Bloſſom whoſe Leaves are of a Scarlet colour within, and on the outſide of a pale yellow.

3. *The Damask Roſe.* The ſweeteſt and moſt uſeful of *Roſes* is the *Damask*, which in my *Lord Bacons* time was by him obſerved nor to have been in *England* above 100 years, of theſe Damask kinds there is one that beareth Bloſſoms with the firſt, and ſo continues with new Bloſſoms until the froſts prevent it, and is therefore called the *Monthly Roſe*, and is not inferior in ſmell to the Damask, and deſerves a place amongſt your moſt ſelect Plants, this ſeems to be the *Roſe* that *Pliny* mentions to be growing in *Spain* that blow and Flower all the Winter.

4. *The Monthly Roſe.*

5. *The Damask Province Roſe.* The *Damask Province Roſe* differs from the ordinary Damask in that only it is very double and fair but not ſo ſweet.

The York and Lancaſter Roſe. The *Damask Roſe* with ſome of its Leaves marked with a faint bluſh is uſually termed the *York and Lancaſter Roſe*. I ſuppoſe becauſe it was the firſt variegated Roſe that was here known after the Uniting thoſe two *Houſes* or *Roſes*.

But

But the best of *Damask Roses* and inferiour to none other is the *Damask* compleatly striped, usually called *Mr. Harts* Rose, it is a very plentiful bearer, the Flowers exceeding sweet and very beautiful, and that Garden is defective that is without it. 7. *Mr. Hart's Rose.*

There are two Roses bear the name of *Belgick Roses* the one of a blush Colour bearing many Flowers at the end of a Branch, and those very sweet, and this Tree is esteemed the greatest Bearer of all Roses. The other is of a red colour very double and beautiful and in good esteem. 8. *The Belgick Rose.*

The ordinary *Red Rose* is generally known, the *Hungarian Rose* is little better, and the *Red Province* is esteemed only for its fairness, as is the *Dwarf Red Rose* for its humility. 9. *The Red Rose.*

The *Rose* that most illustrates the whole kind is the *Rosa-mundi*, being Red elegantly strip'd with White, two so divers colours appearing plainly at a distance, its scent is weak but that defect is supplyed by its beauty. 10. *Rosa Mundi.*

The *Marbled Rose* is a very fair Red Rose, fully and curiously marked or dappled with dark colours, that it very much resembles 11. *The Marbled Rose.*

reſembles *Marble*, from whence it hath its name, and deſerves a place amongſt the beſt Roſes.

12. *The Velvet Roſe.* The *Velvet Roſe* is the darkeſt of all Roſes, and its Leaf much reſembling Velvet, it's not very double but ſome more than others. This Tree and the *Roſa mundi*, are very great encreaſers.

13. *The Francford Roſe.* The *Francford Roſe* yieldeth large ſhoots and is fit for the budding of the *Yellow Roſe* on it, the Flowers not much to be commended, nor is that of the *Roſe without Thorns*, or the *Virgin Roſe*.

14. *The Cinamon Roſe.* The *Cinamon Roſe* is in eſteem only for its ſweet ſcent and early blowing, being the firſt of Roſes.

15. *The White Roſe.* 16. *Roſa Canina.* The vulgar *white* and *bluſh Roſes* are known to moſt, the *Roſa Canina* ſo call'd from its whiteneſs like unto a Dogs tooth, yet not ſo perfectly white as the Vulgar, but much more double and for that reaſon it is eſteemed.

17. *Musk Roſes.* The double *Musk Roſes* flower later than any other Roſes except the *Monthly Roſe*: Their ſcent gives them their name, and deſerve a place in your Garden, but the ſingle called the *Spaniſh Musk Roſe*, is not of ſuch value.

18. *Ever green Roſe.* One ſort of the Musk Roſes keepeth on its

its green Leaves all the Winter, which property hath impoſed its name, its Flowers are ſingle, yet not to be ſlighted by the curious.

The vulgar ſweet Briar for its excellent odour in the Spring, deſerves a place near your Houſe or places of repoſe, yet not ſo much as that which bears a double bloſſom, for which it is preferr'd to it, and is one of the beſt of odoriferous plants. 19. *Double Eglantine.*

The *Gelder Roſe* or *Gelderland Roſe*, ſuppoſed thence to have its name, or rather *Elder Roſe* from the likeneſs of its branches to *Elder*, having the name of a *Roſe* I place it here, although not in any thing reſembling it. It is a hardy Tree and yields great plenty of Snow-white bunches of Bloſſoms and very well becomes a Garden or a Chimney by a due mixture. 20. *The Gelder Roſe.*

SECT. II.

Of Ordering of Roſe Trees.

ROſes have been in ſo great eſteem from all antiquity that the curious have been very diligent in their propagation, amend-

ment and discovery, several having been in several ages produced that were not known to the times preceding, and various wayes have been invented and found out for their propagation, improvement and preservation.

The more excellent sorts of them have succeded very well by Grafting on the Stock of the common sweet Bryer.

And by inoculation may they be increased on the Stocks of the common Rose Trees, the time for this work is about Midsummer.

And when you have thus obtained one Tree of a sort of the more rare, you may multiply them by laying them, which may be done without the help of Boxes or Pots, the Branches being pliable and the Tree it self humble, only by bending down the Tree and laying the Branches in the Earth and covering the Middle of them, being first prickt with an Awl about some joynt, that is to be under the Earth, this may be done in the Spring, sometimes Watring the Layers in dry Weather, then in the Autumn most of the Spriggs will have taken root, and are in their Prime to be removed, these will never degenerate, and all Cions proceding

ding from them will be of the ſame.

To make *Roſes* bear early, they muſt be planted in a very warm place or on a declining Bank towards the Sun, and irrigated with Water, inriched with the hotteſt dungs or ſhavings of Horn and Lime ſteeped in Water: ſome ſay warm Water will accelerate their blowing.

To make them bear late, the way approved of by ſeveral upon experience, is at the time when they begin to bud, to clip or ſheer off all the buds, and when other Roſes have done blowing theſe will ſhoot forth new Buds, thus may you annually continue this pleaſant Flower longer then naturally it would, by cutting ſome of your Trees that they may ſucceed the other.

Some ſay if you cut the tops of the Trees in the firſt of the encreaſe of the Moon after the Bloſſoms are faded that another ſhew of Bloſſoms will appear about *Michaelmas*, but the other is the more certain way.

To have *Roſes* untill *Chriſtmas*, you may plant the monethly Roſe in ſome Niech of your South-wall and you will have Roſe buds freſh and fair in *October* and in mild Winters in *November* which by

ſhutters artificially made may be defended from the cold (ſometimes admitting the Sun) until *Chriſtmas*, you may add artificial warmth to them if you pleaſe, I have had fair *Roſe buds* in *November* with younger by them, which might have been thus preſerved.

Musk Roſes are to be planted againſt a high Wall or ſide of ſome building and not check'd in their growth upwards, leſt you hinder their bearing.

SECT. III.

Of divers other Flower-bearing Trees.

BEſides the great variety of colours and delightful ſcent that the Roſes have for the greateſt part of the Summer yielded you, yet there are ſeveral other ſweet and pleaſant Objects Nature hath furniſhed you withal, if you will lend your aſſiſtance to convey them into your *Garden*, of whom none are more gratefully odoriferous than the *Jaſmins*.

Nor

Nor knows he well to make his Garden ſhine,
With all delights, Who fragrant Jaſſemine,
Neglects to Cheriſh.—— Rapinus

The moſt common is the *Yellow Jaſſemine*, but the white far exceeds it in beauty and yielding one of the moſt odoriferous Flowers in nature, as the perfumes made thereof witneſs. In the Autumnal Seaſon theſe laſt furniſh you with many Bloſſoms for a long time until the Froſts prevent them, both theſe require the help of a Wall or Palliſade, their Branches being but ſlender and weak, yet enduring the moſt ſevere Colds.

1. *Yellow Jaſſemine.*
2. *White. Jaſſemine.*

The *Indian Jaſſemine* or the *Mexican Tlilxochitle* is a Plant requires a tall Wall to aſpire againſt: at every Joynt it hath ſmall claws or tendrils, inſinuating into Brick, Wood, or any other penetrable ſubſtance, and requires but ſmall aſſiſtane to prune it, it affords a beautiful Scarlet Bloſſom, in *America* being one of the Ingredients to the famous Drink *Chocolate*.

3. *Indian Jaſſemine.*

The two former Jaſſemines are great encreaſers and all of them may be encreaſed by Layers.

Not inferiour to the beſt of the former is the *Perſian Jaſſemine*, for that it is a beautiful

4. *The Perſian Jaſſemine.*

tiful Shrub yielding in the prime of the Summer moſt pleaſant and well ſcented Bloſſoms, which welcome you to the choiceſt Flowers, Trees will yield. As the *Perſian Nuts* and *Iris*, ſo the *Perſian Jaſſemins* precede in Bloſſom all others in reſpect of time, and therefore are the more valued, they are eaſily encreaſed by Layers.

5. the Lilack. Not much unlike in Bloſſom to the laſt is the *Syringa Pipe Tree* or *Lilac*, but the white more rare, being but of humble growth, the Bark of a whitiſh colour, the Leaves of a very pleaſant pale colour, affording you Branches of fine ſcented white Flowers in *April* and *May*, and is a Tree yielding ſuckers plentifully, which very well merit room in your choiceſt Avenues.

6. Balauſtium. The *double bloſſomed Pomegranate Tree*, is eſteemed the rareſt of all Flowring Trees yeilding ſo pleaſant a Branch and a much more Luſtrious Bloſſome.

Pomegranates next their Glory vindicate.
Their Boughs in Gardens pleaſing Charms create,
Nothing their Flaming Purple can exceed,
From the Green Leaf the Golden Flowers proceed.

This

This Tree deſerves the choiceſt place in your Garden and under the warmeſt Wall, being tender whilſt young, but after very hardy, the Flowers are double fair and beautiful, exceeding all others, born by Trees: they are eaſily propagated by Layers.

This delicate Plant deſerves a little of your care and aſſiſtance, in ſeparating from it the many Suckers that uſually procede from it, and keep it to a few or but one Branch and ſometimes enrich the Ground with well conſumed Hog's dung; for it is the plenty of nouriſhment, makes them apt to Bloſſom, and too many Branches or Suckers rob them of it, you need not houſe them but if you doubt your Wall ſtands too open to the cold Winds which only can hurt them, it is but taking a mat or placing a Skreen before them in the Winter to defend them from it.

7. *Dwarfe Almonds.*

The dwarf Almond is a very humble Shrub bearing in *April* many fine Peach-coloured Bloſſoms, and is a very pleaſant Plant and yields plenty of Cions, it deſerves a place in your Garden and needs not to be houſed, it enduring all Weathers.

8. *Mezerion.* The *Mezerion* from whence ſoever tranſported is one of the moſt hardy Plants in nature, ſending forth its pleaſant, beautiful and odoriferous Plants in the coldeſt ſeaſons of this Northern Climate, uſually in *January* and continues in bloſſom in *February* and *March*, after them Leaves and then its Coralline berries, by whom it is increaſed. The Shrub is of a very ſoft conſiſtence, and although cold, will not kill it, yet is it very tender in the choice of its Ground, I ſuppoſe a light Ground or a very moiſt are not proper for it.

There are three ſorts of them, the one of a Peacth colour, another more red being not ſo common, the other and the moſt rare is the White.

9. the Sena Tree. There are two ſorts of *Sena Trees*, the *Great Baſtard Sena* and the *Scorpion Sena*, both of them yielding a pleaſant Leaf and fine yellow Bloſſom, not unbecoming a good Floriſt's Garden, they are ſlender and require the help of a Wall, indure all Weathers, are tonſile and therefore reducible into any order, and are increaſed by Seeds, Layers or Suckers.

10. Spirea Frutex. The Shrub *Spirea* is a ſmall Tree bearing ſmall peach coloured bloſſoms about the

the Month of *Auguſt*, it's a hardy Tree and is encreaſed by Layers.

The *Judas Tree yields* a fine purpliſh bright red bloſſom in the Spring, and is encreaſed by Suckers and Layers. 11. *Arbor Judæ.*

The *Bean Trefoyl*, ſo termed from the likeneſs of its Leaves to the herb Trefoyl, and its Pods to Beans, it affords many fine yellow bloſſoms, and is a very pleaſant though common Tree, it is encreaſed by ſeeds, cuttings, and layers, and requires ſome artificial helps to ſupport its weak Branches, there are three kinds of theſe, the ſmalleſt is called *Cytiſus ſecundus Cluſii.* 12. *Laburnum.*

Not much unlike to the yellow Jaſſemine is the *Spaniſh Broom*, only its flowers are like our ordinary broom as are the Cods, only larger: it flowers in *May*, and is encreaſed by Seeds and Suckers. 13. *Spaniſh Broom.*

The *double Virgins Bower* is a climing Tree, fit to cover ſome place of repoſe, or to be ſupported by props for that purpoſe, it bears many dark blew double flowers in *July*, *Auguſt*, and until the cold prevents them: you may cut off moſt of the ſmalleſt branches in the Winter, it ſhoots early and ſpreads very much in a Summer, it is eaſily encreaſed by Layers. 14. *Virgins Bower.*

There

There are of them ſingle both purple and red, but this double is to be preferred.

15. *Woodbinds.* The *Honey-ſuckle*, eſpecially either of the more generous kinds of it, is a plant which though vulgar yet deſerves our pains in propagating it. The double and the red are the moſt choice, and are eaſily propagated by Layers.

16. *Periploca.* *Periploca* is a plant that twiſts it ſelf about a pole as doth the hop, it lives over the Winter and yearly puts forth ſmall blew bloſſoms, is encreaſed by Layers, and entertained in Gardens only for variety ſake and not for its beauty.

17. *Althea Fruticoſa.* Of the *Shrub Mallow* there are two ſorts the *purple* and the *white*, they endure the Winter, are uſually planted Standards, bring forth their Flowers in *Auguſt* and *September* until the wet or cold prevent them, the Tree is increaſed by Layers. The bloſſoms reſemble the bloſſoms of a Mallow whence it hath its name, and is a fair Autumnal ornament to your Garden, for it buds and blows very late in the Year.

18. *Hypericum Frutex.* *Hypericum Frutex* is a Shrub yielding abundance of ſmall ſlender ſhoots, which in *May* are very thick ſet with ſmall white bloſſoms,

bloſſoms, that the Tree ſeems to be all hoary with froſt or covered with ſnow: it is encreaſed by Suckers and endures all weathers, and very well becomes the choiceſt Gardens.

There is a ſort of *Peach Tree* yielding double flowers fair and beautiful, deſerves a place under your Wall. 19. *Double flower'd Peach Tree.*

The like there is of *Cherries*, a ſort that bears a fair white bloſſom very double, but yielding no fruit as doth that of the *Peach*, yet a welcome Plant to a good Floriſt. 20. *Double flower'd Cherry.*

There are Apple Trees and Pear Trees that yield double flowers, but they are not ſo much regarded.

Thus by propagating and preſerving ſuch *Flower-bearing Trees* and *Shrubs*, may you have your Garden and Groves replete with great variety of curious flowers from the end of *January*, when the hardy *Mezerion* expoſes its ſeveral coloured ſweet ſcented bloſſoms to your view, until the cruel froſts and winds check the *Monthly Roſe*, *Athea fruticoſa*, *Virgins Bower*, and *White Jaſſemine*; and ſo throughout the whole Summer between thoſe two extremes, and that without the trouble of removing, altering, ſhading, skreening from

from cold or other inconveniences, which moſt other flowers are ſubject unto, and are therefore much rather to be preferred, yet if you are willing to undergo the little trouble of defending the *Monthly Roſe*, or *White Jaſſemine*, you may have bloſſoms from them later, and *Roſes* even until *Chriſtmas*.

CHAP.

Chap. III.

Of Bulbous-rooted Flowers.

NExt unto the *Flower-bearing Trees* are those of Bulbous roots to be preferred for their easie propagation and management, and durableness in all seasons hot and cold.

SECT. I.

Of Tulips.

OF all which the *Tulip* hath obtained and not undeservedly the preference, yielding so great a Variety, that they are not here to be enumerated, every Year producing new Flowers, nor is it all the words I can invent can convince you of the beauty of these Glories of Nature, but must refer you to the choice, your self or friend for you, can make out of that Magazin of varieties that are collected for the Ingenious Florist.

Their Colours are various, from the deepest

peſt dy of any other Flowers to the pureſt White, entermixt with the brighteſt Yellow, tranſcendent Scarlet, grave Purple and many other compounds of theſe inclining to the Blew and Green.

Their Seaſon of Blowing continues long, the *Præcoces* or *early Tulips*, beginning ſome of them to blow at the Vernal Æquinox, the *Medias* which are the prime, continue all *April* and ſomtimes the half of *May*, till the end whereof the *Serotines* or late Flowring Tulips continue.

When the principal of them diſplay their Colours in the heat of the day there is not a more Glorious ſight in Nature nor is it to be imitated by Art, no Limner nor Painter dares pretend to ſo great skill: but as all things elſe that are in exceſs are ſooneſt apt to decline, ſo theſe that precede all others in beauty and luſtre, ſooneſt fade, not any of them continuing in its Glory above eight or ten dayes, unleſs the mildnes of the weather or ſome artificial ſhade preſerve them, nor are they ſucceded by any other from the ſame root.

Tulips are not only preſerved by taking them up yearly, when the ſtalks are turning yellow or begin to be dry, but

are

are by that means multiplied and encreaſed exceedingly. The uſual way is to take them up at that convenient time, and ſpread them thin on ſome board or floor until they are thorow dry, then cut off the ſtalks and ſo let the roots lye in ſome box or boxes or other convenient places until *September* or *October*, then ſeparate the main Bulbs from the leſſer Chives, taking all that are large (and round though ſmall) for Roots that will yield you Flowers the next year, and ſet them in the places appointed for them, but let the ground be digg'd or otherwiſe looſened, that the Root may the better dilate it ſelf and encreaſe, for in a narrow or ſtiff hole, your Root will remain till the next year as you left it.

When you plant them, ſtick into the ground by them ſmall ſticks marked with the numeral Letters, which you may do *ad infinitum*, and in a ſmall book for that purpoſe, may you inſert the mark and name of the flower.

When you take them up and diſperſe them into boxes or other receptacles, you may transfer the marks with them.

The ground you plant them in, ought not to be too luxurious, this *Noble Flower* is

is content with a little Room and poor Soil.

In the worſt mold this Flower better thrives,
And barren Earth miraculouſly gives
More beauty to it, than a fertile ground,
And when leaſt ſtrong, it is moſt comely found.

The vulgar field or hazle Earth with a little mixture of Sand in it is the beſt, for the richneſs of the ſoil cauſes them to run (as they term it) into dark and plain colours. But if your ground be naturally rich, or that your *Tulips* have grown ſeveral years in it, you may abate it and ſupply it with that which is fit, or lay a bed of ſandy Earth about a finger thickneſs below the *bulb*, when it is in its proper place, that ſo the fibres may receive a check. *Tulips* may be raiſed in *January* and *February* on hot beds, but they muſt be the *præcoces* that are to flower early.

Some preſcribe to plant your *Tulips* in a natural earth ſomewhat impoveriſh'd with ſand, ſo that a little below the root the earth may be better within reach of the Fibres.

If the ground be digg'd where your *Tulips*

lips ſtood the laſt year, it is equal to a change of mold, the roots rarely falling into the ſame Earth again where they were before.

Your ſmall Cions or off-ſets you may plant in a Bed by themſelves, which will furniſh you at another time with great variety.

As *Tulips* run or degenerate, take them up and plant them in your outward Groves, your prime colours will multiply faſt enough.

Tulips that are apt to decline towards a ſadder colour, may be taken up a little before they come to flower and laid in the Sun to abate their luxury, which will make them come better the year following.

From ſuch Tulips that have their *Tamis*, (that is the ſeed-like things that ſtand up about the Seed-Veſſel,) and bottoms of dark colours, and their ſeed Veſſel three ſquare, may ſeeds be obtained when they are thorow ripe in *June* or *July*, that may after a long expectation afford you great variety of Flowers. Theſe ſeeds may be ſown in *September*, and every two years removed until they yield bloſſoms, but this labour and patience are

too great for an ingenious, and fit only for a dull *Florist*.

The often removing of the roots of *Tulips* and their off-sets into various ground, gives you a great encrease and great variety of colours without that tedious way of raising them.

2. *Of Fritillaries.* The next of kin to the Tulip is the *Fritillary*, whereof there is some variety, as the White, Yellow, Red, dark coloured, some of them checquer'd and thence called the *Checquered Tulip*, but the double is the most rare, their seasons and manner of ordering much like that of the Tulip, only the dry Roots ought to be planted about the beginning of *August*.

SECT. II.

Of Hyacinths and Star Flowers.

THe *Hyacinths* are all bulbous rooted, except the tuberous rooted *Indian Hyacinth*, which we reserve for the conservatory. The sorts of them that are termed Muscaries or Grape flowers whereof there are many diversities, as Yellow, Ash coloured, Red, White, Blew, and Sky coloured,

coloured, are pretty things, and may for variety sake but not for their beauty be planted.

But there are other varieties of them, as the *fair hair'd branched Jacinth*, the fair *curled hair'd Jacinth*, the Blew, White, and Blush, *starry Hyacinth* of *Peru*, and the blew Lilly leaved *starry Hyacinth*, that yield fair flowers on large stalks that adorn your Garden and Flowerpots. These flower in *May* and may be removed in *August*, they lose not their fibres and are therefore not to be kept long out of the ground.

There are several sorts of them that lose their fibres and may be kept longer out of the ground, and are to be preferr'd to the other, for that they come early in the year from *February* until *April*, and are very sweet and well coloured.

The principal whereof is the great Oriental *Hyacinth*, called *Zimbul Indi*, or *Pat toot*, or *Celestial Hyacinth* from its fair blossoms.

Some are more double as well White as Blew, and therefore are to be esteemed, the vulgar are some white, some of a Cream colour, others of a deep blew and some of a pale, but all are very becoming a Garden,

in the Spring of the Year before they are over matched with Flowers of a nobler Hue.

Of Star Flowers.

The neereſt of kin unto the Hyacinths are the Star-Flowers, whereof ſome of them are valuable, as the *Ornithogalum Arabicum* or *Star Flowers of Arabia* which flowers in *May*; the great white *Star* of *Bethlehem* in *June*; the *Star Flower of Naples* in *April*, and the *Ethiopian* in *Auguſt*, theſe of *Arabia* and *Ethiopia* are tender, and coming out of ſo hot Countreys will not endure our ſevere Winters, therefore their Bulbs muſt be planted in rich warm Earth in Boxes or Pots, and ſecured in Winter from froſts.

SECT. III.

Of Daffodills.

THe *Narciſſus* is a Flower ſo well known, that it's needleſs to ſpend many words on it but for its great variety, bright Colour, and early flowring, the better kind of them deſerve to be planted here and there under your *Groves* and *Avenues*, and other *Shades* where they proſper

prosper very well and waste no Ground, they are hardy Plants and multiply much, some of them are white and sweet scented, blowing late in the Spring, some are single others double and others very double, some bear many Flowers on a Stalk others but one, so that from the end of *March* to the beginning of *May* they furnish you with Flowers for your Pots.

The *Junquils* are of the same kinds and afford some variety, and flower much about the same time with the Daffodills.

The *Leucoium* or Bulbous Violet is reckoned amongst the Daffodils, it is sometimes called the *Snow Drop* because it shewes its Snow white Flowers sometimes in *January* and generally not long after, for which early blowing it is esteemed.

Of Lillies.

SECT. IV.

UNder this name have been of old many famous Flowers. Some imagine, the most illustrious *Tulip* was once intended by it, when *Salomons* glory was esteemed

med inferiour to one of them, but there is little reason for that Opinion: for in *Pliny*'s time neer about the time of our Saviours being upon Earth, the *Lilly* was in great esteem, than which no Flower was more in request in the choicest Gardens, except the *Rose*, which *Salomon* himself admired as well as the *Lilly*, & then the *Tulip* was but a hedge Flower and so remains in the Asian continent as is reported; Neither is there any Flower of that transcendent whiteness (an Emblem of Purity and innocency) as the *Lilly*.

But there are of several Colours and seasons, Flowers that are of that family.

Crown Imperiall. As for the Spring the *Crown Imperial*, single and double, Orange coloured, red and yellow, they are but dull Flowers.

Red Lilly. Then there are the vulgar *Red Lilly* single and double, whereof only the double is worthy your notice.

White Lilly. The *White Lillyes* both *single* and *double* are planted in most Gardens for their Colour and the use of their roots, which in *Pliny*'s time added much to the reputation of the Plant.

Martagon. Of *Martagons* there is great diversity, the *Imperial*, the *white*, *white spotted*, *Red* and *Red spotted*, *yellow* and *yellow spotted*

ſpotted with divers other variations, but none of great value.

SECT. V.

Of Saffron Flowers.

THe *Colchicums* or *Meadows Saffron*, ſo termed, being firſt taken out of the Meadows, theſe Flowers are called *Naked Boyes* becauſe they appear naked out of the Earth and are withered and gone before the green leaves appear. *Of the Colchicum.*

Of theſe *Colchicums* there is ſome variety beſides the plain colour, ſome ſtriped others Checquered, whereof the *Colchicum Chio* is the moſt beautiful, but the double is the more ſplendid graceing your Garden in the Autumn when moſt other Flowers are faded, all theſe variegated and double Flowers are to be eſteemed for that they come ſo late in the Year, and make a delicate medly, they put forth their green Leaves early in the Spring following, and when thoſe wither they may be taken up and encreaſed and replanted about the end of *Auguſt* following.

The *Crocus* or *Saffron Flower* ſo called *Of the Crocus.*

from its resembling that Plant in Root, Leaf and Flower, there are great variety of these Flowers, and much variegated or Striped with White, Yellow and Purple, their three Principal Colours.

They bring forth their pleasant but short Blossoms in *February* and *March*, there are some of them *Autumnal* that Flower in *September* and *October* as doth the true Saffron, the Roots are taken up when the Leaves wither and Planted again about a Month or two before their Flowering time, they increase very much and adorn the edges of borders or close under Walls or Pales.

SECT. VI.

Of severall other Bulbous rooted Flowers.

Of the Moly.

THere are several other Bulbous rooted Flowers, which for variety, are to be entertained, as the *Moly*, whereof there are many different sorts that are in Flower in *May*, *June* and *July* and serve to mix in your Flower Pots and Chimnies, they are planted and increased as other hardy Bulbs.

The

The *Asphodils* are of no great beauty: but may be planted and increased as other Bulbs, for their variety. *Of Asphodills.*

As may the *Phalangium* or *Spider wort*, whereof there are the white and the *Blew*, some Flower in *May* and *June*, but the *Blew* in *August* and *September*. *Of Spider Wort.*

Gladiolus or *Corn Flagg* there are several sorts, *Red* and *White*, and serve only for Flower Pots and Chimnies, are hardy and to be Planted and increased as the other Bulbs. *Of Corne Flaggs.*

Of the *Satyrions* or *Beeflowers* or *Gnatt Flowers*, there is some diversity, they are taken out of the Fields and Meadows, are very beautiful where they are remote from the place of their extraction, they are very tender and therefore are cauteously to be removed, they are to be taken up Earth and all, unless you can observe where to find them when dry, you must endeavour to Plant them in Ground connatural to that from whence they came. *Of the Orchis.*

The *Doggs Tooth Violet*, so called from the likeness of its Bulb to Doggs Tooth, there are of them Purple, Red, White and Yellow, they are in much esteem being brought far, and difficult to be obtained, not increasing in this Country; they are *Of dens Canicus.*

Planted

Planted in good natural (not dunged) soil about the middle of August, and flower in *March*.

Of the Cyclamen. The *Cyclamen* or *Sowbread* for their curious and odoriferous blossoms are received in the Gardens of the best Florists.

The Grecian Cyclamen *from far they bring,*
The Red and White both flourish in the
Rapinus. *Spring.*

Some sorts of them also flower in the Autumn, and one or other of these beauties adorn your Garden from *April* to *October*.

Their Roots do not lose their fibres, and are therefore difficultly remov'd, their time of removing is in *June* or *July*, or before their time of blowing. They are raised of seeds which must be sown, as soon as ripe, in boxes, and then at two years end transplanted into your Garden where they will endure any weather.

SECT.

SECT. VII.

Of the Iris, Bulbous, and Tuberose.

TO conclude this Chapter of *Bulbous* rooted Flowers, I shall here insert the *Iris*, there being of them as well with bulbous as tuberose Roots, not that they are inferiour in beauty to any of those preceding, except the *Tulip*, but that I am unwilling to divide them whose flowers retain the same form, although they differ in their Roots. *Of the Bulbous Iris.*

Now Iris *springs which from the heavenly bow,*
Is nam'd, and doth as many colours show:
Its Species, and its Tinctures different are,
According to the seasons of the Year.
Rapinus.

The *bulbous* afford very great variety, some of them (as the *Persian*) flowering in *February* or *March*, others in *April*, *May*, *June*, and *July*. There are some of them very fair and beautiful, their Colours are either *Blew*, *Purple*, *Ash coloured*, *Peach coloured*, *Yellow*, *White*, or Variegated. Their Roots may be taken up as soon as the Leaves begin

gin to wither, for ſoon after they are quite withered, the bulbs will iſſue out more fibres and then it is too late to remove them, otherwiſe you may keep them dry till *Auguſt*.

They delight in a good ground, but not too rich, on a ſunny bank, but not too hot to the *South* or *Weſt*, the Eaſtern Aſpect is the beſt.

Of the Tuberoſe Iris. Thoſe *Flower de Luces* with tuberous Roots are not altogether ſo various as the bulbous, yet affording to the ingenious Floriſt many curious Flowers, the beſt and moſt excellent whereof is the *Chalcedonian Iris*, vulgarly called the Toad flag from its dark marbled flower. This Species of them ought to be carefully ordered, elſe it will not thrive well, it requires a warm and rich ſoil to be planted in, and becauſe it is apt to ſhoot forth its green Leaves before Winter, it expects to be a little defended from the cold. Theſe Bulbs may be taken up when the Leaves begin to be dry, and kept ſome time in the houſe, and then replanted in *September* or *October*, which will make them thrive the better.

The other ſorts of the *Tuberoſe rooted Flower de Luces*, are much more hardy and encreaſe

encreaſe exceedingly in good ground, and are therefore not ſo fit for your choiceſt Garden.

CHAP.

CHAP. IV.

Of Tuberose rooted Flowers.

AFter having passed over those curious Plants and Flowers, that with the least pains and care to be planted, propagated and preserved, I shall now give you a brief account of such that are a little more difficult to be managed, yet require they no more trouble than they sufficiently recompense with their most pleasant Flowers: The most select whereof is the *Anemone*,

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SECT. I.

Of Anemonies.

THe *Anemone*, which is a *Greecism* signifying *Wind*, thence it is called the *Wind Flower*, for that it is observed never to open but when the Wind blows, or at least in those Countries where it is naturally produced it may have that property. It was in great esteem amongst the Ancients

cients for the beauty of its flowers mix'd in their *Chaplets* and *Garlands*, although then there were not a tenth part of that variety of them that now the curious have collected and propagated.

It is one of the beauties of nature, and the most excellent that season can afford, bearing such different flowers, that they make the cold *March* almost equal in Glory to the Summer, which is a wonder that such soft *Flowers* and *Tyrian* and *Scarlet* dy's should be produced in so early a season, which are usually the effects of a continued Calidity.

What angry Deity did first expose,
To the rough Tempests and more rigid Snows,
The soft Anemone *whose comely Grace*
A gentler season and a better place
Deserves: For when with Native purple bright,
It shews its Leaves to the propitious light,
With different Colours strip'd and curled Flames,
Encompass'd, it our love and wonder claims.
There is not any other that out-vies,
This Flower's curl'd leaves or numerous dy's,
Nor the Sidonian *Art could er'e compose,*
So sweet a blush as this by Nature shows. Rapinus.

As

As of the *Tulips*, so of these, the best way is to please your self in your election from the view of them. The usual descriptions can never sufficiently nor satisfactorily inform you of their real worth.

They are generally of two sorts, broad leav'd *Anemones* and narrow leav'd *Anemones*, those with narrow leaves much resemble Parsly, whence they were anciently called *Rose Parsley* or the *Parsley Rose*.

The Soil wherein they delight must be fat and rich, manured with Sheeps dung and Neats dung with a little mixture of Lime, all thorowly rotted.

About the end of *September* or beginning of *October*, you may plant your *Latifoles* or broad leav'd *Anemones* about three fingers deep, and about a Month after your *Tenuifoles* or narrow leav'd *Anemones*, which yield their Flowers after the other.

But if you design to have them more early you may plant them sooner and with Mats secure them against the cold, and give them all advantages of the *Sun* and warm rains, for the Frosts are very apt to nip their leaves when above ground, and impede their flowering for that year.

If

If you desire *Anemones* to flower late, then keep them out of the ground as long as you can, some will abide out of the ground until *February* or *March*, and plant them in shady places or artificially shade them. Thus may you have *Anemones* after the usual natural time of flowering.

When their green Leaves turn yellow, or about the end of *June* or in *July*, you may take them up and preserve the Roots dry till the season for interring them, for after they have lost their Fibres they are apt to perish by the humidity of the earth. The place you keep them in ought to be cool as well as dry.

It is very injurious to the *Latifoles* to break their Roots, which should only be parted as they are naturally apt to be divided, but the Tenuifoles will endure an easie Rupture or Scissure.

If you preserve your *Anemone* Roots in a cool place until the middle of *January*, and then plant them, they will be the more secure from the injuries of bad weather, much wet prejudiceth as well as severe cold.

As your *Anemones* are prejudiced by over much wet, so do they require and deserve a little irrigation in very dry Springs,

and will ſufficiently gratifie you, a little ſhade will alſo advantage them in the hotteſt times of the day.

In *May* will theſe Flowers bear ſeeds, which gathered and ſown in *July* in good ſifted earth in beds or boxes, will produce great varieties in the third or fourth year after.

Mix the down that contains the ſeeds, with ſome fair dry earth, and rub it together in a wooden veſſel, and the ſeeds will mix with the earth, by which means you may ſow them equally, be ſure to ſow them not too thin.

After you have ſown your ſeeds, ſift earth upon them about half a finger in thickneſs, when they have been come up about a Month ſift more earth finely over them about half an inch and cover them at ſome diſtance all the next Winter.

The *Auguſt* following you may remove them into convenient beds, where they may remain till they bear flowers, at which time you may cull them as you pleaſe.

Forget not a gentle irrigation to your young *Anemones* in dry Weather, for it will much forward them, as will a little Artificial ſhade at Opportune ſeaſons.

The

The *Ranunculus* or *Crowfoot*, being so near in resemblance to the *Anemone*, differ very little from them in their ordering. *Of Ranunculus.*

They exceed all Flowers whatever in the richness of their colours, nor is there any flower so fine and fair as are the larger sorts of them.

Their times of Flowering, taking up, and Planting, are near about the same time as the *Anemones*, but they agree better with a richer mold than the other.

They are not so apt to multiply their Roots unless their ground be rich and light, therefore it is by the most skilful prescribed, to lay a broad bed of old Thatch or almost rotten Straw, and on that to sift fine rich Earth six or eight inches thick, and therein to plant your *Ranunculus's*, wherein they will thrive and encrease.

If you plant them early in the Winter, they must be defended from the sharp Winds and Frosts, but if late there is no necessity of it, they are somewhat more tender than the *Anemone*.

Irrigation in a dry season, much advantages this Flower, as it doth the *Anemone*.

SECT. II.

Of Peonyes.

THis although a common Flower, yet yields the faireſt and moſt double bloſſom of any, and very well becomes your Chimney or Flowerpots. But the *White*, *Purple*, and *Changeable Peonyes* are acceptable in the Gardens of the beſt *Floriſts*, and the ſingle *Peonyes* in the Phyſick Garden, for their ſpecifical virtues of their Roots againſt the moſt dangerous of diſeaſes.

The manner of their planting and ordering is known to moſt that have any intereſt in a Garden, only it is neceſſary to underſtand, that *September* and *October* are the fitteſt times for their tranſplantation.

CHAP.

Chap. V.

Of divers other Select Flowers.

SECT. I.

Of Gilliflowers.

NOtwithſtanding the *Flower-bearing Trees* are complete Ornaments with little trouble, the *Bulbous rooted* Flowers ſo illuſtrious that they merit great eſteem from the moſt curious, being leſs ſubject to caſualties than moſt others, and the *Tuberoſe Roots* yield ſuch incomparable beauties in the Spring; yet muſt they concede to the *Gilliflower*, the pride of the Summer, that hath its ſcent as pleaſing as its variegations beautiful.

Lovely Carnations then their Flowers dilate,
The worth of them is, as their beauty, great.
Their ſmell is excellent.—— Rapinus.

Their colours are not many, but infinitely and variouſly compounded, and being ſo eaſily and frequently raiſed of

ſeed, do annually produce new mixtures, and thoſe have impoſed on them new names, that it is impoſſible to give you a true account of them, therefore it will be more proper for you to pleaſe your own fancy or confide in the integrity of a Gardener, than to truſt to the lame deſcriptions you may meet withall, or to the florid Names that are given them on purpoſe to beget your admiration of ſuch that little deſerve it.

Their times of Flowring are generally in *July* and *Auguſt*, ſometimes the early Buds may yeild you Flowers in *June*, but their latter Buds in *September* and *October*, and by careful defending them in *November*.

The right *Dutch Gilliflowers* rarely produce Seed here, but when they do, you muſt preſerve it from wet till it be ripe, then gather it and lay it by in the Husk until the Spring.

In *May* after the cold Nights are ſpent is a good time to Sow theſe Seeds, which ought to be on good Earth in ſome Shady place where it may have the morning or evening Sun only.

They ſhould be ſown thin and the earth ſifted over it half a Finger thick.

In *Auguſt* or *September* following you may

may remove them into their proper Beds, and the Summer following, they will inform you of their worth by their Flowers. The ſingle and poorer ſort reject, and thoſe that blow fair and whole or are well marked preſerve.

For the firſt Winter after Sowing them there is little danger of their being hurt by cold, in that particular they are like the *ſtock Gilliflowers*, which in their firſt Winter ate extreme hardy and in the ſecond very tender.

You may Plant your beſt *Gilliflowers* in Pots filled with Earth for that purpoſe, that you may give them *Sun* or *Rain* according to the Seaſon of the Year and as they require.

Plant them not under a Wall or other fence that may reflect the heat of the *Sun* upon them, for they delight in an open Air, and not in intemperate heat.

Great rains, eſpecially in the Winter and Spring, prejudice them much: therefore you are to defend them from it equally as from cold. Thoſe Flowers that are Planted in Beds and not in Pots are to be defended from wett and cold as there is occaſion by ſome Cover or ſhelter to place over them, which muſt be open at

the top or on one ſide: the fitteſt for this occaſion are old Beehives with a Door of about a Span Square on the ſide that may be open off from the weather which you defend them againſt.

You may increaſe your Flowers by Laying them in *June July* and *Auguſt*, but in *June* or *July* is the beſt time, the method is thus, Firſt trim your Slip you intend to lay by clipping off the ſide Leaves and topping the other: then with a ſharp Penknife cut a Tongue half through from one of the midle Joynts under the Slip, to the next Joynt towards you, beginning next the Root and cutting upwards, looſen the Earth under it and with a ſmall Hooked Stick force it down that the Tongue or ſlit may open and the end of the Slip point upwards, cover it with Earth, and water it, which irrigation muſt be reiterated according as the drought of the ſeaſon requires it.

If the Slips be ſo high that they cannot be bent to the Ground with eaſe, then take a ſamll earthen Pot with a ſlit on the ſide, in which you may diſpoſe of your Slip as you deſire.

About a Moneth after, your Layers will have taken Root, then may you take

take them off with some of the adhering Earth, and plant them in their places prepared for them.

But if any should not have taken root, you may anew lay them and make the cut a little deeper, and so let them remain till the spring, and then you may Plant them out as you see fit.

Plant your Layers not too deep: for thereby many a good Plant hath been spoyled.

A Cave or Pitt made in some place in your Garden would be very convenient to place your Pots of Flowers in: for there no Winds nor severe Frosts can annoy them, the driving rains also cannot much offend them.

The morning *Sun* is the most benign to your *Gilliflowers*, therefore you may defend your most choice from the Afternoon *Sun* by some artificial Skreen, in case you have no place naturally posited for that purpose: this to be done before and in blowing time.

To have *Gilly-flowers* or *Carnations* (as they are vulgary termed from those antient English Flowers that were usually of a Flesh Colour) during the most part of the Winter, they may be placed in Pots in some convenient room open to the South, and to be shut at pleasure to defend

fend them from the cold unleſs to give them the benefit of the warm *Sun*, at noon ſometimes, or a little ſoutherly Rain, into which room may be conveyed ſome warmth from your ordinary Fire or elſe a Fire therein on purpoſe, I ſuppoſe a Lamp may be maintained burning at an eaſy expence in a cloſe room which may be ſufficient to defend them from froſt, a conſtant though ſmall heat will effect much, the Lamp may alſo be enlarged as the room or ſeverity of the weather requires, the ſmoak of the Lamp may be conveyed away by a Funnel over it for that purpoſe, thus may many other rarities be preſerved over the Winter at an eaſy charge.

The Earth about your *Gilly-Flowers* ought to be renewed once in two Years at the leaſt: for by that time they have exhauſted the better and more appropriated part of the Earth or Soyl.

Your Flower Pots ought to have holes in the bottom to let out the ſuperfluous moiſture, and alſo in caſe you are willing to water your Flowers, you may dip the Pots half way into a Tub of Water prepared, the one after the other, and the Earth will attract the Water through the holes, which is much better than ſprinkling.

If

If you have any *Gilliflowers* that are broken, ſmall, or ſingle, you may graff on them other Gilliflowers that are more choice, but graff them in the moſt woody part of the Stalk, the beſt way is by whip-graffing.

Pidgeons dung being the hotteſt of dungs applied about the roots of Gilliflowers, maketh them flower the more early.

To defend your Gilliflowers from the injury of cold and froſt, ſuch of them that are placed in beds and not moveable, ſome have preſcribed to take two ſlender Wands or bending Sticks, and fix each end in the ground on each ſide of the flower, that the ſticks may Arch-wiſe be a croſs over the flower.

If your *Gilliflower* or Layer be inclinable to ſhoot up in the Summer with one ſingle ſtem, ſuffer it not to bloſſom that Year, but nip or cut the ſtalk off, leſt it give you a fair Flower and never thrive after.

Pinks though mean Flowers ſingly of themſelves, yet the Common red ſingle ſort of them, planted on the edges of your Walks againſt the ſides of your banks, do not only preſerve your banks from foun- *Of Pinks.*

dring

dring or moldring down, but when in bloſſom are a very great Ornament, and moſt excellently perfume your Garden.

Sweet Williams. *Sweet Williams*, *Sweet Johns*, and *London Pride* are pretty fancies, and near of kin to the old Engliſh *Gilliflower*.

SECT. II.

Of Stock-Gilliflowers and Wall-Flowers.

Stock-Gilliflowers. THE *Leucoium* or *Stock-Gilliflower* is a Flower of much beauty, delicate ſcent, and ſome variety, a good Garden cannot be ſaid to be well ſtored without them, nor a Flowerpot well adorn'd without ſome of theſe, they continuing long in bloſſom, from *April* till the Froſt prevents them. They are generally raiſed of ſeed; and the firſt Winter, becauſe they have not yet ſpent their finer ſpirits, they are very hardy and endure any weather, but the next Winter they are very tender.

With

With curled Threads and top divided now,
Along the Margin of your Borders grow
Stock-Gilliflowers, whose blushing leaf may fear,
And justly too, the sharpness of the Air.

The double, whereof some are strip'd and some plain, are very pleasant, but the double yield no seed.

The single have generally four Leaves in a blossom, but if there be five Leaves, the seed thence produced will bring double Flowers.

The white single usually produce double Flowers, as also do those that are strip'd with white.

The yellow double *Stock-Gilliflower* is the most rare of any.

The seeds of those kinds that usually produce double Flowers, being often sown in the same soil, will degenerate into all single and by degrees into all plain colours as I have tryed. *Quære*, if they will do the same if sown in barren earth.

There is another sort of *Double Stocks*, that are not raised from seed, only by Slips and Layers, that is more durable than the seedlings.

Those

Thoſe raiſed of ſeed will ſometimes abide the ſecond Winter if it be mild, or the Stocks well defended; if you take away the blowing Sprigs the precedent Autumn, it will much further their duration.

They may be laid as other Plants are, and kept ſecure from violent colds will endure the Winter.

They may be planted out in ſlips, if you take ſuch that are not ſpired to blow, and cut them from the Stock, and ſlit the end in three or four places about half an inch, and peel the rind back as far as the ſlit and take away the inward wood: then ſet this ſlip with the Rind ſpread every way about two or three fingers deep, water it and ſhade it until it hath taken Root, by this means may you maintain your ſtock of *Double Stocks*, without the two years expectation.

The ſeeds from which you expect to have double Flowers, muſt be ſown at the full of the Moon, or in two or three days after, and when come up four or five inches high, take them up and Plant them out, which prevents their running up to ſtalk, which labour you may reiterate twice before Winter.

If

If you remove, water, and ſhade them every time to preſerve them, (it being a Summer work) and do it the firſt time three days after the full, and twice more before the next change, and again three days after the next full, and once more before the ſucceeding change (all theſe removes to be in barren ground) Then at the third Full Moon, eight days after remove them again into rich ground wherein they are to ſtand. It is ſaid that it will make them bring forth double Flowers. *Sr. Hugh Plat.*

It hath been long obſerved that the Moon hath great influence over Plants, (over Animals it is very conſpicuous) From *Pliny* to this day moſt *Authors* have been of that opinion. And if it hath any ſuch influence, then ſurely it is in the doubling of Flowers, for we daily obſerve that many ſorts of double Flowers will degenerate themſelves into ſingle, and that moſt of thoſe double we have (which are of the kinds uſually ſingle) are propagated by Art and induſtry, and why may not the *Lunar* influence contribute much thereto? The *French Poet* was of that opinion, although differing as to the time.

Till it be full Moon, from her first increase,
The Season's good; but if she once decrease,
Stir not the Earth, Nor let the Husbandman,
Sow any seed; When Heav'n forbids 'tis vain.

The same Poet adds.

Some in preparing of their Seed excell,
Making their Flowers a larger compass swell,
Thus narrow Bolls with curled Leaves they fill,
Helping defective Nature by their skill.

Often removing them doth not only contribute to their worth but duration.

The *Keiri* or *Wall-flowers*, so termed, for that the single kind naturally affect to grow on old Walls and that the double need the assistance of some Wall or other support, are hardy Plants though not altogether secure in the most severe Winters and the better sort of them, that is, the double white, and the *double Red* very pleasant both to the Ey and Smell, they are easily encreased by Slips and Layers.

SECT.

SECT. III.

Of Auricula's Cowslips, and Primroses.

Of Auricula's.

Bears Ears or *Auricula's*, considering their size are the finest Flowers, the choicest Garden yields, affording a very great variety in form as well as in colour, and are not only beautiful to the Ey but pleasant in scent.

In your election of them, it is better to trust your Ey or confide in an honest Gardner, than in the lame descriptions of them, as before was hinted concerning the choice of *Tulips* and *Gilliflowers*, only that the double is the most rare, and the *Windsor Auricula* the most splendid of all the rest.

They adorn your Garden in *Aprill* and *May*, and some of them again about the end of *August* and untill the frost prevent them.

If you crop off the Buds that offer to blow late in the Autumn, it will cause your Auricula's to yeild you the fairer Flowers in the Spring.

They delight in rich Soyl and shady,

but not under the drip of trees.

They must be often removed, once in two Years at least, and the Ground inriched, else they will decay.

The striped and double must be removed oftener or else they will degenerate.

If you set them in Pots (which is the best way to preserve them) fill the Pots almost half full with sifted Neats-dung, the rest with a good light Mold enriched with the same Dung.

In the Winter place them in the *Sun*, but in the Summer in the shade.

Defend them from wet in the Winter, but they endure all cold very well.

You may raise them from Seeds by carefully gathering the Seeds and preserving them in their Umbels till about *August* or *September*, when you must sow them in Boxes almost filled with the mixture you made for the Plants, and about a Fingers thick at the top with fine sifted Willow Earth or dryed Cowdung beaten small and mixed with the Earth in which sow your Seeds mixt with wood Ashes, then cover them with the same mixture of Earth sifted thereon, about *Aprill* following they will come up, then may you plant them abroad, and they will yield

yield you Flowers, ſome the *Auguſt* following, others the next ſucceeding year.

There are ſown very pleaſant Cowſlips of ſeveral ſhades of red, the *hoſe in hoſe*, the *green Cowſlip* and the *double Cowſlip*, that are worth your planting, they are very hardy, and muſt be ſometimes removed or they are apt to degenerate. *Cowſlips.*

The ſame is obſerved of the Primroſes, which yield the like variety of Colours and are intertained for their early welcoming in the Spring. *Primroſes.*

On a broad Leaf the Primroſe firſt will blow.

SECT. IV.

Of the Lilly of the Vally & Hellebor.

THe *Lilly Conval* although wild in ſome places Northward (as many fine Plants are in one place or other) is yet entertained in many good Gardens for its rich ſcent almoſt equalling the *Orange Flower*, the uſe of this excellent Flower in ſeveral preparations and its ſpecifick properties and vertues in ſome diſeaſes makes it the *Lilly of the Vally.*

more acceptable it is easily propagated from plants, is hardy and delights in the shade.

Hellebor. The Black Hellebor flowereth about Christmas, and for that cause only is respected and not for its beauty, the best sort of White *Hellebor* with red Flowers is a Plant in great repute amongst florists, its Leaves making also a comely shew, and flowers in *Aprill* and *May*.

Calceolus Mariæ. Our *Ladyes slipper* (an *Helleborine*) is much valued by most Florists, although wild in many places of the North of England, it is probable by reason of its name occasioned by the likeness its Blossom hath to a pantofle or Slipper.

It yeildeth its Flowers early in the Summer, is a hardy plant in respect of cold but not very apt to be increased.

SECT. V.

Of the Hepatica, Gentianella and Dittany.

Hepatica. The *Hepatica* or *Liverwort* is a very pleasant humble Flower, never rising high, yet yielding its variety of pretty Blossoms

Bloſſoms in *March*, The double and the white are moſt regarded and do deſerve your labor and care, which is not much, to plant and propagate them.

The *Gentianella* is another very low plant yielding in *Aprill* and *May* many blew Flowers of a deep dy, and are therefore regarded by moſt floriſts. *Gentianella.*

Fraxinella or *Dittany* is a hardy plant annually furniſhing you with tall ſtalks full of not unpleaſant Flowers in *June* and *July*, and is raiſed by Plants or Seeds. *Dittany.*

Chap. VI.

Of Flowers raised only from Seed.

THe great diversity of Flowers we have hitherto had the pleasure to name may be propagated by divers others wayes according to their respective Natures, than by Seed, but there yet remain several Flowers not unworthy your care, that are raised by no other meanes than by Seed as the *Larkes-heels* or *Larkes-spurs*, whereof the *Tipt Rose Lark-spur* is the prime, is a very pretty Flower and well becomes your Walks in *July* and *August* or early if sown before Winter and defended from the most severe Frosts: they are generally sown in *April*, the best will degenerate being often sown in the same Ground.

Lark-spurs.

Colombins.

The Variety of *Columbines* single and double, plain and stript makes them acceptable in a good Florists Garden, they are Sown in the Spring, the Young Plants indure the Winter, and the next Year they yield their Flowers. The Roots will continue three or four Years, these will also degenerate unless the Seed be changed. There

There is no Flower can be more glorious than the Poppy, were it as good as great, and as ſweet as well coloured, and as laſting as it is nimble in growth, but their ill ſmell and ſoon fading, makes them the leſs regarded. *Of Poppies.*

The *Hollyhocks* far exceed the *Poppies*, for their durableneſs and are very ornamental, eſpecially the double, whereof there are various colours, they are ſown one year and flower the next, they may be removed in *Auguſt* or *September*, from your ſeminary into their proper places of growth, which ſhould be near ſome ſhelter from the Winds becauſe of their height. *Of Hollyhocks.*

The *Antirrhinum*, *Snap-dragon*, or *Calves ſnout*, ſo called from the form of its bloſſom, is ſown in Gardens becauſe it flowers long, and will grow in any place, as on Walls *&c.* And ſerves for Chimneys and Flowerpots, elſe it is (in a Garden) of no great beauty nor ſmell. *Of Snap-dragons.*

The *Muſk Scabious* is one of the ſpecies of *Scabious* or *blew bottles*, and ſo named from its moſt pleaſant ſcent, and called the *Sultans Flower*, becauſe the *Grand Siegnior* affected to wear it in his *Turbant*. *Of the Sultans Flower.*

This though mean to the Eye, yet is a Plant worthy of place among your choiceſt Flowers, in kind years and good ground it will come up, being ſown in *April* and flowers in *Auguſt*: You may for the more certainty raiſe it in a hot bed, it is alſo ſaid that if it be ſown in *Auguſt*, the Plants will endure the Winter, and blow fair the next year.

Of Amaranthus. The *Aramanthus purpureus* is a fine delicate Plant, bearing ſuch curious Tufts of ſeveral colours, like unto Silks died in Grain. The Seeds being ſown in a hot bed in *March*, and then raiſed under Glaſſes in the hotteſt place of your Garden and often irrigated, will produce thoſe tufts in *Auguſt* and *September* following, and do deſerve your care as much as any Plant.

Of Marigolds. Of *Marigolds* there are divers ſorts beſides the common, as the *African Marigold*, a fair large *Yellow Flower*, but of a very naughty ſmell, and another ſort much fairer of the ſame colour and of little or no ſavour at all, and for that reaſon is received into ſome good Gardens. They are raiſed of ſeed ſown in *April*, by ſome in a hot bed, but they will in a ſeaſonable Spring thrive well enough without,

and

and yield their beautiful Flowers in *August* and *September* following.

The *Greater Convolvulus* is raised by seed in the Spring, and more certainly in a hot bed, they twine about sticks of about half a yard high, and yield their bright blew Flowers in *August* and *September*, they blow in the evening, and the next morning the *Sun* withers them, but the blossoms renew every evening till the Frosts prevent them, they are a comely evening Ornament to a Garden. *Of Bindweed.*

The *Marvail of Peru*, so termed from its wonderful variety of Flowers on the same Root, it is in many things like the *Convolvulus*, and is by some called the Flower of the Night, it is more tender than the other, and is therefore to be raised in a hot bed. *Of the Marvail of Peru.*

Lupines are here sown in Gardens Annually for the sake of their Flowers, but in *Italy* an ordinary pulse sown in the fields for food for their Cattel, and in those hotter Countries they have a property as *Pliny* relates, of turning their Flowers and keeping their course with the *Sun*, whether the Air be cloudy or clear, & that they serve instead of Clocks or Dials for the time of the day, and by some other motions, *Of Lupines.*

tions as Prognosticks for the Husbandmen to judge of the weather. But in these colder parts we propagate them merely for Flowers which are the greater and the lesser blew, the white, and the yellow, which last is regarded the more for its sweetness.

Of the Scarlet Bean.

There is a sort of *Kidney Bean*, that yields a fine Scarlet blossom, for which it is esteemed.

Of the Everlasting Pease.

The *Pease everlasting* is so called, because although it be first raised of seed, yet it Annually produces new branches which furnishes you with many blossoms of a reddish colour, and are not unbecoming a good Garden.

Of the Sensible Plant and Humble Plant.

The *sensible Plant* so called by reason, that as soon as you touch it, the Leaf shrinks up together, and in a little time dilates it self again: And the *humble Plant* so called because so soon as you touch it, it prostrates it self on the ground, and in short time elevates it self again, are both of them raised in hot beds, and preserved with great care being the most tender *Exoticks* we have.

Noli me tangere.

Although the two last yield no Flowers, yet deserve a place in your Garden, and here in this Tract, and because they shall not

not be alone I will conclude this Chapter with an odd Plant called *Noli me tangere*, becauſe when its pods are groſs and not fully ripe, if you offer to take either of them between your fingers it will fly in pieces, and cauſe the unwary to ſtartle at the ſudden ſnap and ſurpriſe, this Plant is annually raiſed from ſeeds, and only for fancy propagated.

CHAP.

Chap. VII.

Of some more Vulgar Flowers.

THere are many Flowers that either for scent or shew are raised in the more ordinary Country Gardens, that several Florists have taken a great deal of pains and care exactly to describe, and the manner and Method of propagating them, which here shall only be named, As the *Aconites* or *Wolf-bane*, *Pile-wort*, *Crowfoot*, *Batchelors-Button*, *Marsh-Marigold*, *Hollow-root*, *Monks-hood*, *Cranes-bill*, *Bell-flowers*, *Champions*, *Nonsuch* or *Flower of-Bristol*, *Princes-feather* or *Common Amaranthus*, *Dames Violet* or *Queens Gilliflowers*, *Rockets*, *Double-Pellitory*, *Double-Featherfew*, *Double-Camomil*, *Double-Dog-fennil*, *Double Lady-smocks*, *Double Daisies*, *Toad-Flax*, *Fox-gloves*, *Glove-Thistles*, *Scabious*, *Blew-bottles*, *Moth-Mullens*, *Nigella* or *Fennel-Flower*, *Thorny-Apple*, *Balsame Apple*, *Apple of Love*, *Candy Tufts*, *Snails*, *Caterpillers*, *Satten-Flower*, and *Flower* of the Sun: These every *Colona* knoweth how to plant, sow, or propagate.

CHAP.

Chap. VIII.

Of such tender Exotick Trees, Flowers and Plants that require the Florists care to preserve them in the Winter.

TO compleat your pleasure, and make your Garden an Object of delight, which is generally placed on rare or unusual subjects aswel as on Vulgar Beauties. You may make it capable of nourishing and preserving such natural Curiosities that cannot endure to be exposed to the *rough*, *fierce*, *severe* and *cruel Blastes* that *Boreas* usually emitts into our English Eden. And have therein your *Brumal* aswel as your *Æstival*, *Odoriferous* Flowers and pleasant greens, That nothing may be wanting in your Terrestial Paradise, that Industry and cost may obtain.

SECT.

SECT. I.

Of Perennial greens and ſuch Plants that cannot endure cold.

AS in the former part of this Treatiſe we began at the more hardy *Winter greens*, So here it will be not unproper to obſerve the ſame order. And as there we named the famous *Cypreſs* firſt, ſo here ſhall we begin with the moſt beloved odoriferous *Myrtle*, ſo highly eſteem'd by the Romans the great admirers of Rarities, before the foundation of *Rome*: That the ſweet perfume thereof when burn'd, became an atonement for the offence the Romans had committed in raviſhing the *Sabine* Virgins. And its ſacred branches (being firſt conſecrated I ſuppoſe) were ſufficient to purify them from ſo venial a ſin: In memory of which offence and ſatisfaction, on that very place the zealous Romans then erected a Sacred Temple dedicated to *Venus Cloacina*, the Goddeſs of ſuch pleaſures and Patroneſs of the innocent *Myrtle*: Myrtle trees were alſo by the ſame Romans planted and propagated as Omens or Prognoſticks of good or evil

Of the Myrtle.

Cloacina,

evil to their State and Government. So superstitious were they ever esteemed.

In *Pliny*'s time was there an old Temple and Altar that had been consecrated to *Venus Myrtea*.

Cato mentioned the Conjugal Myrtle which *Pliny* supposes to have proceeded from that which was dedicated to *Venus Cloacina*, and used it seems in their Marriages.

Pliny attributes a strange effect to it, That if a man hath a great Journey to go on foot, and carry in his hand a Stick or Rod of the *Myrtle-tree*, he should not be weary, nor think his way long and tedious: Its probable its operations are more vigorous in such places where it naturally delights, than here where a kind of force is put upon it. But we here in *England* can second this Vertue in that of an *Elder-stick*, which if a young Horseman carry in his pocket, although he ride hard and far, yet shall he not be galled; as some affirm.

Of *Myrtles* here known in *England*, there is the broad leaf'd *Myrtle* and the narrow leaf'd *Myrtle*, both very fine sweet smelling Shrubs; but the most elegant is that which in the Autumn affords such plenty

plenty of double white bloſſoms, being a Plant very worthy the care of the moſt ingenious Floriſt, and are not ſo great a vexation as delight, whatever Mr. *Rea*'s opinion is, *Rapinus* ſeems to be of another,

Deſpiſe not humbler Plants, for they no leſs,
Then Trees; your Gardens beauty do increaſe.
With what content we look on Myrtle
Groves!

They are not ſo tender but an eaſie defence will make them endure hard Winters. I have known many Trees planted on borders endure ſeveral Winters, that have not been over ſevere; and never in the greateſt extremity, required but a tilt from the wind and ſnow.

The Plants produced from Layers are the moſt hardy, thoſe from ſeeds the moſt tender, the ſame it is with moſt odoriferous herbs as *Thyme*, *Marjerom*, *Hyſop*, *&c.*

If planted in Pots or Boxes, they are eaſily removed into your more open *Green houſes*, or *Vaults*.

Of the Indian Faſſemine, and Spaniſh Faſſamine.

There is a ſort of *Myrtle* with a large leaf called Spaniſh *Myrtle*, that will endure all weather without ſhelter.

There are the *Indian yellow* and the *Spaniſh*

Spaniſh white *Jaſſemines* that are very curious Shrubs and yield moſt fragrant Flowers equaling almoſt the Orange Flowers, and deſerve a place in your more open Green houſe or Vault, where a mean defence will preſerve them from the too great ſeverity of the winter.

Cytiſus Maranthe lunatus, is a Plant ſown as ordinarily in the *Aſian* territories, as common Pulſe are here, and is both branch and Seed, the beſt food for all their Cattel, and is a great encreaſer of Milk in Beaſts as well as in Women, but here with us preſerved as a rarity in Pots or Caſes and ſo to be diſpoſed in great colds into the Conſervatory. *of Cytiſus Lunatus.*

The *Oleander* or *Roſe-bay* is a Plant bearing ſome of them bluſh and ſome white Flowers, and will proſper if ſecured from the moſt violent cold as the other before mentioned Plants are. *Oleander.*

The ſame may be ſaid of *Laurus Indica*, although as yet a great ſtranger. *Indian Bay.*

The *Maracoc*, uſually termed the Paſſion Flower from the Thorns and pointed leaves it hath, repreſenting the Thorns wherewith our Saviour was Crowned and Nails wherewith he was nailed to the Croſs, as the Authors of the name imagined. *Maracoc*

This Plant encreaseth much by Cions naturally growing from it, and if the root be preeserved from the extremity of the Frost it will yeild many beautiful Flowers yearly in *August*.

Snails as naturally affect this Plant, as they do the fruit of the Nectarine Tree, and as Cats do the *Marum Syriacum*, and therefore care must be taken to defend them.

Star Flower of Arabia and Of Æthopica.

Ornithogalon or the *Star Flower* of *Arabia*, which yieldeth a beautiful Flower in *May*, as that of *Æthiopia* in *August*, must be preserved as the other Plants.

Indian Reed and Indian Fig.

The *Indian flowring* Reed, if often watered and secured in the *Winter*, yields store of Flowers, but the *Indian Fig* is a very low Plant growing one leaf on another, and is therefore called *leaf* upon *leaf*, and only preserved in the Winter for the rarity of it, no Plant in Nature being like it.

Cistus Mas.

The *Male Cistus* is a Plant of no great esteem yet preserved for the rarity thereof as is the *Cistus Ledon*.

Jucca.

The *Indian Jucca* not only affordeth us its sharp pointed Flag like leaves but sometimes its beautiful Flower and is preserved only for the rarity thereof, and usually

usually prescribed to be defended from the Winter cold, but by some affirmed to endure the most severe Weather.

Periploca or *Virginian* Silk, of little value is much of the same nature, for the defence of those Plants which only suffer in extreme colds, a slight Shelter may serve either as they stand abroad in their proper Places, or by removing them into some *Garden House*, not so close as the Conservatory for the more tender Plants ought to be. *Virginian Silk.*

Or a Vault or Cave may be made a little within the surface of the Earth about the edges whereof may be disposed as you think fit your several Pots or Boxes.

Or you may sink a hole for each single Pot or Box, so that the Plant may be a little below the surface of the ground. over which an ordinary Shelter from the wet may serve, or if you sink it deeper, it will defend your Plant the better.

For as the Earth in the Summer preserves Plants or what else you place therein cool from the scorching Rayes of the *Sun*, so doth it from the extremity of cold in the Winter; Neither hath the Wind or Morning air in that season so

great an advantage, over a Plant thus posited, as it hath if it be on a level.

SECT. II.

Of such Plants that least indure the cold.

OTher plants there are whose descent have been from a more hot Climate, and are of themselves of a more tender nature, than the other before mentioned.

Of the Orenge. Whereof the *Orenge-tree* is the most Principal, and deservedly in great esteem not only for its beautiful (though acid) fruit, but for its most fragrant Flowers, of which is made so rich an Essence, and whose distilled water is of so transcendent Vertues, that they will sufficiently recompence your diligence and care in nourishing and preserving the Tree.

These Trees preserved in strong Boxes may be with ease removed into your Conservatory, and thence in the Summer plac'd in several places of your Garden.

No

No Tree your Gardens, or your Fountains more
Adorns, then what th' Atlantic Apples bore.
A deathleſs beauty Crowns its ſhining leaves,
And to dark Groves its Flower luſtre gives.
Beſides the ſplendor of its golden fruit.
Of which the boughs are never deſtitute.
Rapinus.

They are raiſed of the Kernels ſown in *March* in caſes of rich Earth; theſe fruits were unknown in former Ages to the *Europeans*, and the Trees have not been long introduc'd; and not many years hath that more noble kind the *China Orenge* been propagated in *Portugal* and *Spain*, which annually furniſh us with thoſe pleaſant fruits, yet there in a few years have they degenerated, as to ſize and taſt: Its probable the Kernels of thoſe may proſper better with us than the *African*, *China* being not ſo hot.

The fruit with us, although it ripeneth not ſo well as in *Spain*, yet in ſuch years that our old ſtock of imported fruit is decay'd, they ſerve for many Phyſical uſes. But the flowers here are much more valuable than the fruit.

Therefore if a Wall be built near the houſe, and well defended behind and on either ſide from cold winds, and ſeveral leaves or doors of cloſe board made to ſhut before your wall, and the top well ſecured from rain, againſt this wall may you plant your Orenge trees and prune them againſt it without ever removing them; only in the Spring ſeaſon, you may open your leaves or doors by degrees, and at length open it quite before and on the top, only leaving the main ſtayes until the next Winter. In the building of this wall may you contrive concavities through which the heat of Fire made in ſeveral places for that purpoſe may paſs behind your Trees, or you may have other Fires in this Shed as in your Green-houſe.

The moſt proper Earth wherein to plant your *Orenge-trees*, is that which is taken out of a Melon or Cucumber-bed, and equally mix'd or tempered with a fine loamy Earth, and ſo to remain the whole Winter, then ſifted into the caſes.

Inſtead of the fat earth of a Melon or Cucumber-bed, you may uſe Neats-dung and order it as the Melon earth.

Before

Before you put your Earth into your Caſes, lay on the bottom a good quantity of Oſier or Withy ſticks, or ſuch like, which will preſerve it light; if they are in a ſmall quantity mixed throughout, it will be the better.

Place them in your Conſervatory before any Froſts happen, and in hard weather give them ſome warmth.

As the Spring appears ſo acquaint them by degrees with the Air, opening the doors at noon firſt and ſhutting them again, then for a whole day if the weather permit. The like diſcretion you muſt uſe when you ſet them into your Conſervatory, not to ſhut them up too cloſe until extremity of weather require it.

As the Trees grow large ſo you may enlarge your Caſes, and take out the Trees, Earth and all, and place them in your new Caſes.

I have heard of a Gentleman that annually makes a Shed or Houſe over his Orenge-tree, and as the Tree encreaſeth ſo he enlargeth his Houſe, and that his Tree is very large, and beareth plentifully.

You muſt gather the Flowers as they blow, leaving but few to knit into fruit,

else will your Tree spend it self in fruit.

You must take care to brush the Spiders webs off this Tree very gently, for they delight to work on it, the fragrant blossoms attracting many Flies.

The Kernels may be planted in hot beds, and will bring fair Plants the sooner.

Easie *Stoves* or *heats* will serve until the Frosts be very hard, then must you kindle greater Fires, but let not any Fire come too neer your Trees, nor any Smoke annoy them. But if your conservatory Fire be very close, with Mats that Water will not freeze in it, then there needs not any fire.

You must water them gently when you find they require it, which may be discerned by the leaf which will soon complain, but give them rather too little then too much, and wet not the leaves.

You ought to renew and alter the Earth as tenderly as you can by abating the upper part of it, and stirring it up with a Fork taking heed to the Roots, and applying the prepared Earth in the room of it, which may be done in *May* and *September*.

If you kindle some Charcoal and when they have done smoaking put them in a hole

hole ſunk a little into the floor about the middle of it, it is the beſt ſtove and leaſt annoyes your Plants.

The Water wherewith you irrigate your *Orenge Trees*, ought to be prepared as well as the Earth, you may therefore mix it with Sheeps dung or Neats dung, and let it ſtand two or three days in the *Air* or *Sun* and it will be very fit for your purpoſe.

Lemmons may be ordered after the ſame manner as the *Orenges*, but they are not capable of giving you ſo large a requital. *Lemmons.*

Amomum Plinii, So called being a Plant by him eſteemed, and by him reported to be naturally growing in divers parts of *Aſia*, and yielding a rich and coſtly Berry, uſed in perfumes: this Plant is now nurſed up in our Climat by carefull preſerving it in the Winter in the cloſe conſervatory where it requires the ſame care as doth the *Orenge-Tree*. *Amomum Plinii.*

Geranium nocte Olens which ſmelleth pleaſantly in the night only, is a tender Plant and deſerves a place in your Conſervatory. *Geranium.*

The *Tuberoſe Hyacinth*, famous for its aſpiring head and moſt fragrant Flowers, ſeeming

seeming to contend with the *Orenge Tree*, is a very tender Plant impatient of cold or wet.

The root must be taken up in *April*, carefully parted without breaking the greater fibres, and then replanted, the bottom of the Pot filled with prepared Earth, but the roots covered only with natural fresh Earth, and then the Pot filled with Earth prepared, as before; place this Pot in a hotBed, and there let it stand without watering until the Root spring, then set the Pot under a South-wall, in dry weather water it easily. In *August* it will yield its Rich Flowers, and in *September* it must be removed into the Conservatory.

In *September* you may take up the bulbs of this Plant and preserve them in dry Sand, or when the Roots are dry lay them up in papers in a warm closet.

Blew Borage leaved Auricula. The *Blew Borage-leav'd Auricula*, being leaved like *Borage*, yieldeth fine blew flowers; it is a rare and a tender Plant; and set in a Pot may be preserved in your Conservatory, from the extremity of the Winter.

Cortusa Matthioli. *Bears-ears Sanicle* is almost of the form of an *Auricula*, is a Plant usually raised of seed, planted in Pots and preserved as other tender Plants.

Mastich

Maſtich Thyme is a Plant of a curious ſcent, and vulgarly known, apt to be encreaſed by ſlips, and as apt to be deſtroyed by cold, and is worthy of your care to preſerve it. *Marum.*

Aſſyrian Maſtich is of the ſame nature, but ſo abſolute a bait for Cats that they will come far and near to it, to devour it, unleſs you preſerve it with the ſharpeſt Thorns or Furze. Theſe and Maſtichs are beſt preſerved by placing them within the Earth, and covering them. *Marum Syriacum.*

Several others there are, that are not only tender but rare and acceptable Plants to the ingenious and careful Floriſt, wherewith, according to the magnitude or capacity of his *Green houſe*, or meaſure of his time he can ſpare about them, he may eaſily furniſh himſelf with all from the great Conſerver of theſe Rarities, Mr. *George Ricketts* of *Hogſden*.

Lib. III.

Of Esculents or Plants for Food.

AS a *Garden* is the greateſt Ornament to your Seat without doors for the variety of pleaſures it yields, ſo is it of as great advantage and ſatisfaction for the variety it affords you of curious Aliments and Condiments, at your Table; not any diſh of Meat can be compleatly ſerved up, without a ſhare of ſome *Hortulan* or other Vegetable.

The meaneſt Cottager may well afford that little ground (if he hath any) that is contiguous to his Tenement, for the propagating of ſome or other of theſe *Eſculents* we are now to treat of: It is not the heat or colours, fatneſs or barrenneſs of his Land can excuſe him here, for there is no Land but is apt to bring you ſome fruit or other of your labour, and where-

in

in some of these Plants do delight: If it be a dry hot sandy Land, *Carrots* will prosper in it; if cold and dry, then *Turnips*, if hot and moist, then *Pease*, *Beans* and most sorts of Tillage; if cold and moist, then *Cabbages*, *Beans*, &c. will not disdain it; thus may some sort of Tillage or other be adapted to every sort of Land.

The accidental or casual thriving of Plants or Seeds in the various sorts of Lands hath, within the memory of man, very much encouraged our Rusticks to a farther improvement of this part of Husbandry, not only because the products of their labours have often found a good Market for curious Pallats: But because they have been frugal meats for their own Families, and sometimes necessity also (which often makes men ingenious) hath put them upon the propagation of these Esculents, which have served as Meat, Bread and Drink in such years that Corn hath been scarce. For in a great part of the World, the Inhabitants never were acquainted with the making of Bread of Corn, but sometimes of the Roots of some Plants that grew amongst them, which they eat with their hunted Venison, or with their Milk, as in *Ireland* they eat *Potatoes*;

tatoes; thus here in *England Carrots*, *Turnips*, *Cabages*, and many other Roots and Plants have been both Bread and Meat for the Husbandman and his Family, who have in many places subsisted long on this Food; and these Esculents being of themselves of a fine nutrimental and moist nature, have not required so much Drink as other Meats more dry and salt usually do; these kind of Diets are at a far less charge and trouble to the *Pater-familiæ* than those of *Flesh*, *Bread*, *Cheese*, &c.

And if the case were truly stated, and the times compared, the improvement and propagation of these Esculents hath been one principal cause of the deadness of the Market for Corn, which probably may be objected against this design.

To answer which you may consider, that cheap food is one of the greatest incouragements for the peopling of a Country, for this very reason many thousands have deserted *England*, to settle in *Ireland* and elsewhere, to our great detriment and their great advantage.

If any Farmer complain of the effects of these improvements, then let him make use of the same, and set out yearly a parcel of his Farm, for the raising of Garden-

tillage,

tillage, wherewith to feed his own Family and furnish the Market.

Then will it be objected, that in case every man should so improve a part of his Ville, the prices of the tillage would be low, and it would not quit the cost.

To answer which, It would then reduce the advantage of the one and the other part of Husbandry to a Ballance, from which no ill effect as to the general can proceed.

It may be further objected, that seeing less Land will, by these wayes of improvement, feed a certain number of people than the old way of Husbandry can do, that much Land will therefore lie wast.

In answer whereunto, If you can raise as much Food on an acre of Land as formerly you did on four acres, what disadvantage to you is it in case the three remaining acres lye wast; but you may convert them to pasture if you please.

In case you object, that Garden-tillage requires more hands to *dig*, *trench*, *set*, *sow*, *plant*, *weed* and *gather in*, than the former way of sowing of Corn.

Answer, This is one of the advantages it will necessarily produce, that a man and his Family may live and keep themselves

ſelves daily employed in this method of Husbandry on a few acres of Land to as equal an advantage, as by the more ancient way they could on a great Farm: For it were much better for the publick, that the great Farms were ſubdivided into leſſer, that the people might have Habitations and Employments here at home to keep them from ſtragling abroad, than to have ſo many great Farms lie ſo neglected, to the great prejudice of the Commonweal: *Palladius* was of the ſame opinion who ſaid, *Fœcundior eſt culta Exiguitas, quam magnitudo neglecta.*

But if you will ſay, that by multiplying Garden tillage after this manner, it will make Corn-land ſo low rented and Corn thereby to become cheap, to the great detriment to the Kingdom in general. Then conſider, that if a part of our Land will yield us food ſufficient and uphold the yearly value of our Villes as by this Method it will certainly doe, then may there be Corn enough raiſed in *England* not only to ballance but under-ſell our Forreign Neighbours to our great advantage and their detriment (which is almoſt equal to it) For the more of our own growths

growths we can vend the more is Navigation incouraged and the greater returns are made. It is when the growths or Manufactures of other Countries are imported hither, and in lieu of them ready mony returned, that impoverishes us and enricheth them. Therefore when the contrary is done, it must have a contrary effect.

The private advantages of the propagating *Hortulans* or esculent Plants, as they are oftentimes represented are prodigious and incredible, therefore a modest computation is the best encouragement; For any rational man will more easily believe that an acre of *Turnips*, *Carrots*, *Onions*, or the like is four or five times more profitable to the Husbandman than an acre of Wheat or Barley, or such like; than if it should be said to be ten or twenty times more profitable.

But for your *Garden* (where you are confined to a less room than a farm,) which is divided into several squares or quarters and each square or quarter well manured and prepared for its proper tillage, there may you expect a far greater encrease, especially of such Plants that annually produce their fruit without

the renewing of the Gardeners coſt and pains, unleſs only to cheriſh and preſerve them, with the planting and propagating of which ſort of Eſculents we will begin.

CHAP.

Chap. I.

Of such Plants that are perennial or continue over the Year.

THE best and most Select of such Esculent Plants that continue from Year to Year, without new planting or Sowing is the *Asparagus*, which deserves to be first named because of its early and plentiful encrease it yields, the delicacy of its meat, and the continuance of it before any other gains a repute above it. *Of Asparagus.*

So long since as in *Pliny*'s time it was the most esteem'd of any in the *Garden*, although in those parts they sometime grew wild, yet in the Gardens were they so cultivated that three of their Buds or Heads would weigh a pound. And were (though common) the *Romans* dainty dish; And *Cato* many Years before *Pliny* wrot very much concerning their propagation out of the abundant regard he had for them, being then but newly reduced to the Gardeners care.

They grow naturally wild or at least

some baſtard kind of them in the Meadows near *Briſtol*; but our more fair and large, uſually called *Dutch Aſparagus*, are propagated from ſeed; the ground wherein you ſow them muſt be rich and well tempered and prepared, then may you with your finger prick in the berries at what diſtance you pleaſe: the beſt time is in *January* or *February*.

Then after two years, in *March* following will they be fit to remove into the bed wherein they are to remain.

But the beſt and moſt expeditious way is to buy your Plants of two or three years growth of the Gardeners, who raiſe them on purpoſe for ſale at an eaſie price.

The Bed you plant them in ought to be three or four foot wide, and about two foot in depth, the moſt part within the ſurface of the Earth, and about ſix inches above, for it will ſettle. When you have made clean and ſquare your Foſs, you may fill it with good rotten dung of any ſort with a little mixture of earth, the beſt ſoyl is that which the Butchers make, wherein there are Hoofs, Rams-horns, or any ſuch cornuous ſubſtance, wherein they exceedingly delight; its probable

woollen

woollen rags or old leather may do as well; with these mixtures may you fill your Bed about eighteen inches, then cover the same with good old rich Mold that came out of some Cucumber or Melon bed for about six inches more, in the midst whereof plant your sets, at sixteen or eighteen inches distance in a *Quincuncial* order, that they may lie covered two or three inches; plant them with their roots spreading as much as you can.

You may make as many of these beds and as long as you please, leaving a two foot interval between them, for the conveniencie of dressing and cutting them, for broad beds are inconvenient, no tillage suffering more by treading than these.

About three Years after they are planted may you cut of them: the sooner you cut of them the more will the head of the Root knit, and the more in number will it Yearly yield you, and the later you cut the more will the Root and head grow in bigness, and the fairer buds will you have. Some will thus grow to be very large.

When *Green Pease* furnish your Table,

then may you let your *Asparagus* run to seed, that they may gather strength for the succeeding year.

In the cutting the Beds remove some of the earth with your knife to avoid injuring the next Successor.

In *November* or the beginning of *December* cut the seedy stalks close to the ground and cover the Beds with new warm Horse dung, which will prevent them from extreme Frosts, for no other will injure them.

In the beginning of *March* uncover them if the weather be open, and either before you cover them or at this time weed them clean, and after weeding lay on your Bed the bottom of a *Melon* or *Cucumber* bed, or such like rich Earth, about two fingers thick to supply the usual decay they are subject unto.

You may have early *Asparagus* if you take the old Roots with the Earth about them, and place them on a hot Bed, thus will they bud in *January*.

By the precedent Rules will a Garden of *Asparagus* furnish you with buds near three months of the year, without the force of a hot Bed, and that in such plenty that no other Tillage whatever that is

perennial

perennial (the *Artichoke* only excepted) affords the like. These whilest less common were received as dainties at the best furnisht Tables; and now, though plentiful; are they an usual dish at most Gentlemens Tables, and by degrees may come to be a more vulgar diet; for after their first planting, the labour about them is but small; and the cost less, the trouble of cutting them not so great as gathering of Pease, nor dressing them so tedious, yet a meat equalling the best of Tillage, and the most salubrious of any.

Of Artichoaks.

About the time the *Asparagus* leaves you, the *Artichoak* comes in request, being one of the best of a Gardens products, and anciently derived from *Thistles*, as *Pliny* tells us, and in his time and long before had been so improved, that they became a most delicate meat, and were served up to the Tables of the most prodigal *Romans*. If then they were so excellent, surely by a continued improvement to this day, must they needs now be much better.

There are several kinds of them, as the more ordinary which run up tall, and bear small heads which are very hardy; the other sorts are more large, and grow

low, and much to be preferred, but are more tender and unable to endure the severity of the Winter.

They are increased by Slips, taken from the sides of the old Roots at the time of dressing them in the Spring, with as much root to them as you can.

Artichoaks, delight in a rich and deep soyl and not very dry, which soyl must be trenched about two foot deep and mixt very well with good old roten dung, and so laid up into beds of what form you think best; for you may go between them as you please, the *Artichoak* roots very deep, and if it likes its ground will grow very large, and continue many Years.

You may plant them four foot apart at least, that they may have room to Spread their leaves, and at their First planting be sure to water them in dry weather until you observe them to grow.

The best times for the planting them is in the beginning of *April*, and you may sow any Sallet Herbs between them that may be gathered and disposed of before the *Artichoaks* spread too far, These Plants will some of them yield heads in the Autumn following.

If you throughly water your *Artichoaks* with

with Water enriched with Sheeps dung, it will make them very large: watring of them in dry Land or in dry Years much advantageth them, for in moist Years they are much more plentiful and large than in dry Years, and the better it will be in case the water be fat.

Water drawn from Ashes or improved by any fixed Salt is very good for the same purpose. For I have known that *Artichoaks* have been the larger for Turf-ashes casually with dung laid at their Roots to preserve them in Winter.

In *November*, or the beginning of *December*, it will be a good time to secure your *Artichoaks* from the Frost, by raising the Earth about them and encompassing them with long dung or any hawmy substance, but not to cover them, lest it perish them, for it's the Frost that perisheth the Roots; and the wet and want of air that perish the Leaves.

Some prescribe to whelm over them an earthen Pot Bee-hive or such like, open at the top to give them Air which may serve if the Winter be not to sharp.

About the middle of *March*, you may gently move the dung from them, and at the end, the Earth that was cast up, and

the

the first week in *Aprill*, may you dress them, by digging deeply about each root and slipping of every set as low as possibly you can, leaving two or three of the greatest and most distant the one from the other for Bearers, then fill them up round with good old dung or rich soyl mixt with the earth and they will afford you fair heads.

If you would have latter *Artichoaks*, you must cut the first crops betimes, or expect them from your new set Plants.

A small spot of ground thus planted and ordered will furnish your Table with many of these Fruits in a Year and are equal to the best of Vegetables for food, charge and trouble are very little in comparison of the advantage.

They will continue six, eight, or ten Years, according to the goodness of the Land they grow in, and then must be renewed when you perceive them to degenerate which they surely do if they like not their ground.

The young buds of *Artichoaks*, may be eaten raw with Pepper and Salt, as usually *Melons*, *Figs*, *&c.* are eaten.

The *Chard* of the *Artichoaks* which is the stalk of a young *Artichoak* an arising out of old

old root and preserved from the *Air* and from heading by winding of it about with a Straw, to blanch it and make it tender, is by the French esteem'd an excellent dish.

The Roots, Stalks and leaves of them whilst young and tender are delicate meat, especially if so preserved and blanched as is by some affirmed; and it is not improbable, for I have often found that by covering a winter bud to preserve it from Frost the Snails have greedily devour'd it.

Those esculent Herbs that are perennial because they are not so much used for Food as for condiment I shall discourse of in another Chapter.

CHAP.

Chap. II.

Of Eſculent Roots.

Of Turnips.

There are ſeveral Roots that have afforded us great plenty of ſubſtantial, pleaſant and wholeſom Food, whereof the *Turnip* is eſteem'd the beſt, there are ſeveral ſorts of them, the round, long, and yellow, of which the round is the moſt common, though the others are very good; the long are uſually called *Navews*, They have been an ancient Food throughout *Europe* Southward and have been very much improved in *England* of late Years.

They will grow on the meaneſt land in its firſt tilth, and much the more if the Seaſon prove moiſt or dripping. The ſeaſon of ſowing them is about *Midſummer*, that they may be ready to improve upon the *Autumnal Rains*, which maketh them much ſweeter than the *Vernal*.

They are fickle at their firſt coming up in a too dry ſeaſon and if (being ſown early) they happen to fail, you may at the end of *July* or beginning of *Auguſt* new ſow your ground. You

You may ſow them in *April*, to have Turnips in the Summer, but Sown after for the Winter is moſt Seaſonable.

In the Winter before the great Froſts prevent, you may take them up, and cutting of the greens, diſpoſe of them in ſome cool place on heaps and they will keep long, and much better and longer in caſe they be laid in Sand and covered with it.

They will root the better and larger if the Leaves ſpread and grow flat, than if they ſtand upright or grow upwards, which to prevent, ſow them not too thick or if they come up too thick in any place, reduce them to a convenient number or diſtance of about ten or twelve inches and and ſupply the defects by tranſplantation. And you will find that the increaſe of your Root ſhall ballance the leſſening your number, for the neer ſtanding of any vegetables cauſe them to aſpire upwards, as is evident in moſt ſpreading Trees planted in copſes.

But if the over fatneſs of your ground which is a great fault for *Turneps*, or over much wet cauſe them to run out in leaf more than in root then treading down the Leaves will make them root the better.

The

The Greens or Leaves of *Turnips* that have been sown late and lived over the Winter, are usually boyled and eaten with Salt meats and prove an excellent condiment.

Thus ordered will a small spot of ground yield you a second Crop (after *Pease*, *Beans*, or *Sallet-Herbs*) of excellent food, which the most curious palats disdain not, and much more in value than any of Corn or grain whatever.

Of Carrots.

Carrots, have been Anciently used for meat but not so much as *Turnips* have been, yet are they the sweeter meat, and more easily eaten without bread, or rather better serve to supply that defect, than *Turnips*, for *Turnips* are much the better Condiment, but *Carrots* the pleasanter Food.

There are two sorts of them, the yellow and the Orenge or more red: the last of which is by much the better.

They delight in light ground with a mixture of Sand; if it be rich or heavy you must take the more pains in digging it to make it as light as you can.

If you dung your Land the same year you sow your *Carrots*, you must be sure to bury your dung so low that the roots may not extend to it, for as soon as

as they touch the dung they grow forked.

The season for sowing them is in *February* or *March* in dry weather.

To make them large you must do with them as with the *Turnips*, only they will admit of a greater number on the same quantity of ground than the other.

If sown between *Beans* set in wide rows, after the *Beans* are taken up your *Carrots* will thrive, and you may have a second Crop, but these not so fair nor early as those that are sown in Beds by themselves.

To improve this and other Roots, gather your Seeds from the highest aspiring Branches, and sow them as before is directed; then when you take them up select the fairest and preserve for seed the next year, then plant them and take the Seeds from the highest tops as before.

Carrots are preserved as *Turnips*, over the Winter, but if you will have *Carrots* early in the Spring, you must sow them in *August*, and preserve them from the Frost in the Winter by covering them with Pease-haum.

Next unto *Carrots* are *Parsnips* in great use for a delicate sweet food, and were so esteem'd *Parsnips.*

esteem'd in *Pliny*'s time, and by him reputed to be excitatives unto *Venus*; an Argument that they are very nutrimental.

They delight in a richer Soil than the *Carrots*, but as light and well stird as may be, else in every respect to be ordered as the *Carrots*; but are not to stand so thick.

Of Skirrets.

The *Skirret* or *Skirwort* root was also a very ancient dish amongst the *Romans* and is the sweetest, whitest and most pleasant of Roots, and by Physicians estemed a great restorative and good for weak Stomachs, and an effectual Friend to Dame *Venus*.

Skirrets delight in a very rich, light, and not too dry Soil, for in moist Summers they are fairest.

They are increased by Plants divided in *February*, or *March* and set in single buds at six or eight inches distance and in a dripping Year, or otherwise if they be watred in dry Seasons, you will have a very plentiful encrease the succeeding Winter; you may also plant them here and there on the edges of your other Beds.

They endure the Winter very well, and you may take them up at any time before the Spring be too forward, if the Frosts prevent

prevent you not; when you take the Roots, cover the tops in Earth for your farther encreaſe.

The Root *Scorſonera* is as yet not common, but very much commended by ſome to be good meat, after the outer rind is ſcraped off, and the root ſteep'd a while in water to take away that little bitterneſs it hath. *Of Scorſonera.*

They are ſaid to lie in the ground all the Winter, and from year to year without any prejudice, but will ſtill grow bigger and bigger, although they yearly run up to ſeed.

They are encreaſed either by Seed, or by Slips as the *Skirrets*, or by cutting the Roots in ſeveral pieces, which planted in good gronnd at about eight or nine inches diſtance in *March*, will yield a conſiderable increaſe, or may be planted at any other time, they being hardy.

They are eſteem'd to be very cordial and excellent in Feavers.

Potato's are much uſed in *Ireland* and in *America* as Bread, and are of themſelves alſo an uſual food. *Of Potato's.*

They grow in any good mellow ground, and are encreaſed by cutting the Roots in pieces and planting them as the *Scorſonera*.

Of Jeruſalem Artichoaks.

Theſe and the *Jeruſalem Artichoaks*, which are by much the meaner food although ſomewhat like them, may be propagated with advantage to poor people, a little ground yielding a very great quantity, as the many ſmall Welſh territories adjoyning to the Highwayes in theſe parts, planted with them plainly demonſtrate.

Of Beets.

The *Red Beet* or *Roman Parſnip*, and the *White Beet* were amongſt the ancient *Romans* and by ſeveral are now uſed aſwel in root as in leaf at the Table.

Beets delight in a rich and deep Soil as doth the *Parſnip*, and muſt be ſown about the ſame time, or rather ſet at about fifteen inch aſunder, becauſe their leaves are large.

Or you may ſow them in a Bed promiſcuouſly, and when they are grown a little then tranſplant them, and they will yield fairer roots, the other being apt to be forked.

There are *Chards* of *Beets* aſwel as of *Artichoaks*, and after the ſame manner may be prepared.

You muſt take them up before the Froſt prevent you, and houſe them as before was directed for *Turnips* and *Carrots*.

After

After the ſame manner plant the beſt for Seed as was directed for *Turnips* and *Carrots*,

Radiſhes in the more Southern Countries are a delicate meat, eſpecially if ſown in brackiſh Lands, or watred with brackiſh Waters, and therefore were they in ſuch eſteem with the *Egyptians*, where were the daintieſt and ſweeteſt *Radiſhes* in the World. *Of Radiſhes.*

The *Greeks* alſo ſo highly preferr'd them to all other meats in regard of their good nouriſhment, that in an Oblation of Garden-fruits unto *Apollo* in his Temple at *Delphos*, they dedicated the *Beet* in Silver, the *Turnip* in Lead, but the *Radiſh* in beaten Gold: Alſo *Moſchian* the Greek Writer had ſo great an eſteem for the *Radiſh*, that he compiled a whole Book of it, as *Pliny* relates.

Theſe in our more Northern Clime attain not to that degree of maturity, as to become food, except it be the leaves, which boyled are eaten with ſalt meats.

But are very much regarded as a *Sallade* for their biting and quick taſt, eſpecially in the Spring, eaten with Salt.

There are three ſorts of *Radiſhes*, the ſmall eating *Radiſh*, the *Horſe Radiſh*, and the black *Radiſh*.

The first is that which hath been so much in repute, and is now ordinarily eaten, and is raised of Seed.

To have them early they must be raised on a hot Bed, with a sufficient thickness of good rich light Mold, that they may have depth enough to root in before they reach the dung.

To have large and clean *Radishes* make holes as deep as your finger about three inches distant, into each hole drop a sound Seed (or two if suspicious) and cover the Seeds a little, leaving the rest of the hole open; thus will they grow to the height of the hole ere they dilate their leaves, and yield you a long and transparent root.

You may sow them all the year, those in the Winter in hot Beds, those sown after *Midsummer* will not run to seed that year.

They delight in rich and light ground, and require watring, for in dripping years they prove fairest.

Horse Radishes. The *Horse Radish* is encreased by Plants as well as from Seeds, and used by many as an excellent and wholsom sawce.

Black Radish. The black *Radish* is so mean a Root that it finds no place in a good Garden.

Onions

Onions are an ancient food, especially of the *Egyptians*, and are much esteem'd of by the *Spaniards*, who eat them as English men do Apples, for in the hotter Countries they are a little milder than here. *Of Onions.*

There are several sorts of them, the red the most tart, and the white the mildest; the ordinary *English* are not so fair as those of *Biscay* or St. *Omers*, but these by often sowing degenerate.

Sow *Onions* in *February*, or beginning of *March*, between the full of the Moon and the last quarter, and they will head very well, and not run to *Chibols*.

They delight in good Land well tempered and freed from Weeds, they extend not their fibres far downwards, therefore in your sowing them tread your bed or beat it flat, then sow it with your seed as equally dispersed as you can and not too thick, then sift over it fine rich Earth a finger thick at most, By this means the root will grow larger and not be apt to run into the ground, for an *Onion* and a *Turnip*, the more on the surface they grow the fairer they prove, this I had from an experienced person.

Onions sown with Salt are said to prof-

per and grow large; it is not improbable because they seem to extract much of the brackish moisture of the Earth.

You may sow *Onions* all the Year for the use of the young *Onions* or *Scallions*, Those sown in Autumn may be covered with Straw or Pease-haum and so preserv'd all the Winter and will be early *Chibols* or *Scallions* in the Spring.

You may plant small *Onions* or such that are grown or beginning to shoot in the Spring in deep holes and they will prove good *Chibols*.

There is a distinct species of *Chibols* or *Ascalonian Onions* in *France* that are encreased by off sets as the *Eschalots*, but they are not usual with us.

The use of *Onions* is generally known, and the advantage they bring to the careful Gardener very great.

Of Garlick. The use of *Garlick*, is as ancient as that of *Onions* with the *Egyptians*, who had them both in very great esteem, as now our *Welsh* have *Leeks*, and used to swear by *Garlick* and *Onions*, deeming them sacred, because they afforded them so much rare food, much after the same manner do our ancient *Britains* dedicate the *Leek* to their Saint *David* on his day and

and *Egyptian* like some of them are known by their Magazin of *Garlick-fume* at a great distance.

Garlick is planted by off sets in *February* or *March* in good rich Soil and it will encrease wonderfully, about the end of *June* you must tie the leave in knots which will make them head and prevent their spindling, it may be taken up in *August* when the blade withereth.

Much of it is eaten in *Wales* and *Scotland*, and some parts of *England*, and much more of it would be spent for its wholsomeness were it not for the offensive smell it gives to the by-Standers, which is taken away by eating of a *Beet-root* rosted in the Embers, as *Menander* (a Greek Writer quoted by *Pliny*) saith.

Eschalots are now from *France* become an *English* Condiment, and are encreased and managed neer after the same manner as the Garlick, only they are to be set earlyer because they spring sooner and taken up as soon as the leaves begin to wither, which is before the Garlick. They must not lie in the ground long after for either they rot in the ground or the Winter kills them. *Of Eschalots.*

They give a fine relish to most Sawces,

and the breath of those that feed on them is not offensive toothers, as it is of those that feed on *Garlick* or *Onions*: they are apt to degenerate being planted two or three Years in the same ground, therefore it is best to renew your plantation with new Plants lately brought from *France*, within two or three Years.

Of Leeks. *Leeks* were in use as anciently as *Onions* or *Garlick*, not only in forreign parts but here in *Brittain*, as is evident by the constant use of them by the *Welsh*, who propagate an abundance of them, in so much that I have seen the greatest part of a Garden there stored with *Leeks*, and part of the remainder with *Onions* and *Garlick*.

By reason of their mild nature they are much used in *Pottage* which hath derived its name from *Porrum* a *Leek*, though now from the French we call it *Pottage*.

They are raised of Seeds as the *Onions*, and sown about the same time.

About *August* plant your *Leeks* in very fat rich ground, and make the holes deep with a setting Stick wherein plant them, but fill not the hole with Earth. Water them once in two days with water enricheth with fat dung, and they will be very large and white.

Plant

Plant the beſt for Seed as you doe the *Onions*. And the ſeed-bearing ſtalks of both muſt be ſupported by ſticks and threds, elſe they will lean to the ground.

Sives being a diminitive kind of *Leek*, is next to be mentioned, they are encreaſed by parting them and planting them in ſingle heads early in the Spring, if planted in good land they will multiply excedingly, they ſtand many Years and are a pleaſant ſawce and good Pot-herb. *Of Sives.*

CHAP.

Chap. III.

Of Beans and Peaſe.

Garden Beans, are an ancient Food eſteem'd by *Pliny* the principal of all Pulſe, They are a very ſtrong and nouriſhing meat. *Pythagoras* forbid his Scholars, the eating of *Beans* only (as is ſuppoſed) becauſe they were a rough meat and diſturbed their ſedate minds in the night, and are not therefore ſo good for Philoſophers nor Students. The greater ſort which we vulgarly call *Sandwich Beans* are by much to be prefer'd for their fruitfulneſs and goodneſs.

They may be ſet in *November* and at any time after till *May*, but moſt ſecurely in *February* or *March*, for if they begin to ſpire, and very ſevere Froſts happen after it, they may be all deſtroyed, *probatum eſt.*

It is not good to ſet them promiſcuouſly but in double ranges at three foot diſtance at leaſt, the ranges running from North to South, the *Sun* will comfort and ripen them the better.

If

If you cut off the Stalks of your Beans neer the ground when they are first ripe, the Roots will spring again and in seasonable Years you may have a second Crop about *Michaelmas*.

From whence we may conclude that if you cut of your Beans that are set in the Spring, at such times as they begin to blow, then they will germinate again into more Branches and bear late, much better than if they were planted late, which extreme drowth usually hinders from coming to perfection.

Kidney Beans were as ancient a Food as the other and in very great esteem with the old *Italians*, yet within the memory of Man were a great rarity here in *England*. Although now a known and common delicate food. *Of Kidney Beans.*

They delight in a warm light and fertile ground, which being well stir'd and about *May* day or very little sooner planted with the *Kidney Beans* at about a foot apart and two fingers deep, will yield you an extraordinary Crop.

You may either set tall Sticks near for them to twine about, or let them ly on the ground, but if you are straitned in room, those on Sticks will yield you the greatest encrease.

Of

Of these there are four Sorts. 1. The *Scarlet bean*, which yieldeth a rough husk and is not the best to eat in the shell as *Kidney* Beans usually are eaten, but is reputed the best to be eaten in the Winter when dry and boyled. 2. The *painted* or *Streaked* Bean which is the hardiest although the meanest of all, and is known, the dry Bean being all over streaked with a dark colour. 3. The large *White* Bean which yields a fair and delicate Pod. 4. The small *White* Bean which except in Size is like the latter but esteem'd the sweeter.

Bona Vista's. There is another sort much like the last that is natural to the Island *Bona Vista* and thence taken and propagated in the Summer Islands from whence some certain persons have them dry, and esteem them as delicate meat, they will flourish well here in branch, but our Summers are not long enough to bring them to maturity, *Quære* if raised on a hot Bed.

Of Pease. *Pease* are of divers kinds, and some of them the sweetest and most pleasant of all Pulses; the meaner sort of them have been long acquainted with our English Air and Soil. But the sweet and delicate sorts of them have been introduced our Gardens

Gardens only in this latter Age, ſuch as the *Hot-ſpurs*, the moſt early, pleaſant and profitable of all others. The *Sugar Peaſe* with crooked Cods the ſweeteſt of all. The *large white* and *green Haſting*, and the great *ſweet Peaſe*, which only we ſhall adviſe to be propagated in our Gardens. The other, which are many more, being already ſufficiently known, we leave for a larger extent of ground than our narrow Garden.

The *Hot-ſpurs* are the ſpeedieſt of growth of any, that being ſown about the middle of *May* will in ſix weeks time return dry again into your hands, no Vegetable beſides being ſo quick in its growth and maturity; therefore let theſe be the firſt that you ſow; if ſown in *February* or *March* they will come earlier than any other ſort ſown before Winter; but if you ſow them in *September*, and can by Fences of Reed or otherwiſe defend them from extreme Froſts you may have ripe Peaſcods in *May* following.

The *Sugar Peaſe* (which many take to be a fair white ſweet *Peaſe* ſucceeding the *Hot-ſpur*, but erroneouſly) is a tender *Peaſe* planted in *April*, and ripe after *Midſummer*, the Cods are very crooked and ill

ſhaped,

ſhaped, which being boyl'd with the unripe *Peaſe* in them are extraordinary ſweet. The greateſt diſcouragement in raiſing theſe, is that their ſweetneſs attracts the ſmall Birds unto them to their total deſtruction, unleſs carefully prevented, which is a ſufficient Argument of their pre-excellency.

The large *white* and *green Haſting* are tender, and not to be ſet till the cold is over, and then not very thick, for they ſpread much and mount high, and therefore require the aid of tall ſticks, every one knows the worth of them.

There is another very large grey, but extraordinary ſweet *Peaſe* that is lately propagated, it is tender but very fruitful, and deſerves a large Bed in your Kitchin Garden.

They delight in a warm light ſoil, if it be rich the *Peaſe* are the fairer, if lean the *Peaſe* are the more early, and ſpend better eſpecially when dry.

They are ſet with a Dibble to more advantage than ſown in Rills or Furrows, but either way ſhould be by a line, and the rows eighteen inches or two foot apart, as the ground is in goodneſs, that you may go between them to haw, weed, or gather them.

If

If you keep the ground between them bare they will ripen the ſooner, for the heat of the ground will contribute much thereto.

If you raiſe the Earth about them when they are about a hand breadth high they will flouriſh the better.

If you ſet or ſow them in the beginning of or before Winter, you muſt interr twice as many *Peaſe* as you need to do in caſe you ſtay till *February* or *March*, becauſe the cold and Mice will deſtroy a part.

Ground laid in deep Furrows from Eaſt to Weſt, and *Peaſe* ſown or ſet on the South declining ſide of each Furrow, will defend your *Peaſe* better in the Winter, than if they were ſown or ſet on a level. For on the *Wiltſhire* Plains the Husbandmen leave their Land after it is ſown with Wheat, as rough and clotty as they can, to ſhelter their Corn in Graſs from the ſeverity of the cold Winds in the Winter.

Peaſe on ſticks will bear more, but on the ground will ripen ſooner.

Chap. IV.

Of Cabbages and Caulyflowers.

Cabbages. There is not a more ancient nor common Esculent Plant than a *Cabbage* or *Caulwort*, nor any Garden Aliment so wholesom, if *Cato* that lived near two thousand years since, and *Chrysippus* and *Dieuches* two famous Physicians more ancient, (that wrote each of them a Volume of the excellent Vertues of this Plant) may be credited, or the Country wherein they wrote considered. *Pythagoras* himself, long before *Cato*, had not so mean an opinion of *Beans*, but he had as high of this. Ever since those times we have had the consent and approbation of all our *Europæan* territories (except the more severe Northern) that *Cabbages* and *Caulworts* are a good and wholesome Food, as their constant and vulgar use of them in every place sufficiently manifest. Here in *England* not a Village without them; and if there be a House without a Garden, or a Garden without a *Caulwort*, yet the Inhabitants

or

or Owners of them will furniſh themſelves from the Market: Yet are they not ſo addicted to the uſe of them here as in *France*, *Holland*, *Germany*, &c. where (in *Germany*) that famous City of *Wurtſburgh* is ſaid to derive its name from the great plenty of *Wurts*, as they call them, that grow about it.

We have here many ſorts of them beſides the common which are known to every one, as the *Dutch Cabbage*, the large ſided *Cabbage*, the white headed *Cabbage*, the red *Cabbage*, perfumed *Cabbage*, *Savoy Cabbage*, and *Ruſſia Cabbage*.

The firſt that heads is a ſmall white *Cabbage*, called the *Dutch Cabbage*, and comes in ſeaſon before the common *Engliſh Cabbage*, and is very ſweet, notwithſtanding it hath not felt the Froſt, which is a great improver of the taſt of moſt *Cabbages*. *The Dutch Cabbage.*

The *Cabbage* that is now much in requeſt is the *large ſided Cabbage*, it's a very tender Plant, ſown not till *May*, planted out in *July*, and in the *Autumn* is eaten as the beſt *Cabbage* in the World. *The large ſided Cabbage.*

The large *White-headed Cabbage*, which is the biggeſt of all *Cabbages*, is worthy your care for its greatneſs ſake. *The white-headed Cabbage.*

The red Cabbage. There is a ſort of red *Cabbage* and another inclining to purple, they are ſmall and grow near the ground and are planted only for variety ſake and to garniſh diſhes, *&c.*

Perfum'd Cabbage. There are ſome ſort that have a Musky ſcent, and are therefore called Perfum'd Cabbages, which are not unworthy your care.

The Savoy Cabbage. But one of the beſt ſorts of all is the *Savoy Cabbage*, almoſt as hardy as our common Engliſh Cabbage, the Winter Plants head very well being planted out in the Spring as the ordinary Cabbages are, the heads when the Froſts have touched them turn yellow, and then are delicate meat.

Theſe that are raiſed of Seed in the Spring will have but ſmall heads, which as alſo thoſe without heads in the ſucceeding Winter are exceeding any ordinary *Caul* or *Cabbage*.

The Ruſſia Cabbage. The *Ruſſia* Cabbage is the leaſt and moſt humble of all the Cabbages growing very near the ground, is very pleaſant Food, hardy and quick of growth: So that you need not be without all the Summer. The Winter Plants heading early and the Spring Plants arriving to maturity in ſeven weeks after they are Sown. Sow

Sow all your *Cabbage* ſeeds that you intend for Winter Plants in *Auguſt* or beginning of *September*, and when they are grown with leaves about three fingers broad then draw them and Plant them out in freſh and rich Land where they may remain all the Winter, and at Spring replant them where they are to ſtand for Cabbages. Theſe are thoſe they call Leger Plants that produce the faireſt *Cabbages*.

You may ſow your Seeds in the Spring in *March* and *April*, for *Cauls* for the whole Summer; and ſome of them, if the Year prove dripping or they ſometimes watred, will head.

At the tranſplanting your young Plants water them with your Water that is enriched with Dung.

Before the great Froſts ſurpriſe you, you may take up your hardeſt *Cabbages*, and after they have hung up by their Roots about a Fortnight to drain the Water from them, you may either lay them in ſome Cellar where they will keep a long time or Plant them deep in the ground cloſe one to another and cover them with hawm or Straw until you have occaſion to uſe them.

Thoſe you intend for ſeed you may

plant in rich soil indifferent deep, and cover them from the Frosts, and in the Spring they will quickly aspire.

Besides these variety of *Cabbages*, *Caul*, and Sprouts springing from the old decapitated stumps, there is a perennial *Caul* that will continually yield you a green Mess when ever you have occasion, and deserves a Place in your Kitchin Garden, and is raised of Seed as the other.

Several of these curious Cabbages I received from Mr. *Richard Ball* Gardner in *Brainford*.

Of Cauly Flowers.

There is a Species of *Cauls* much more excellent then any of the former which are *Caulyflowers*, which merit a far greater esteem at the Table than the *Cabbage*, for a time, their prime Season lasts not above two Months. But afterwards the *Cabbage* becomes a better Dish, which is welcome to any mans Table six Moneths together, and the *Sprouts* and green *Caul* all the residue of the Year.

Their Seeds are sown in *August* or *September* on Beds where they may be defended all the Winter by Mats or other close Shelter to preserve them from Frosts.

In the Spring about the end of *March* it is a good time to Plant them out in Plants where

where they ſhould ſtand, which in a dripping Spring or by diligent watring will yield you fair Flowers, but if they are not watred they will bring forth ragged and divided Flowers.

You may ſow their Seed in *February*, on a hot Bed and have Flowers within a Moneth after thoſe that were ſown before Winter.

Thoſe that are of one growth uſually Flower about a time, which to prevent you may remove ſome of your Plants once every fortnight for two, three, or four times as you think good, which will keep them back from flowring, and ſo you may have them one after another as you pleaſe: Or you may cut of your Flower before it be fully ripe with a long ſtalk and ſet it in the ground as far as you can and it will retain its ripening, but you muſt ſhade it, and give it a little Water, leſt it wither.

Chap. V.

Of Melons, Cucumbers, &c.

Of Melons. *Melons* or *Muskmelons*, as they are usually termed from their pleasant Scent, are in the more southern Countries not unworthily esteem'd the most delicate fruit the *Kitchin Garden* affords, for in those warmer Airs they attain a greater Degree of Maturity, which exceedingly adds to their Gust and Salubrity, however here in *England* being raised in the first of the Spring, and having thereby all the prime of the Summer and heat that Nature and Art can give them, they are a pleasant and a modish repast, and therefore deserve your singular care in their propagation and management.

There are several sorts of *Melons*, and and called by several names, but those most usually known are the *large ribbed Melon*, and the *Small round Melon*.

They are sown in *February* at the full of the Moon in your hot bed, (the making whereof you shall find at the end of this Book) the Seeds first steep'd in Milk

twenty

twenty four Hours, and then set two or three in a hole about an Inch deep.

When your Seeds are in the ground Cover up your Bed to preserve it warm, and when they are come up then cover them with Drinking-glasses leaving room for a little Air near the ground.

Towards the end of *April* you may remove your Melon Plants out of the *hot* Bed, into the Bed wherein they are to grow all the Summer, which Bed or at least certain large holes in it, is to be of very rich light Mould, the best time for this work is in an evening after a fair day.

At their first removal they must be watred and defended from *Sun* and cold three or four Days together, and afterwards from the *cold*.

When the Plants grow large, you may cover them either with Glass Bells made for that purpose, or with Square Cases of Glass made by the Glasiers for the same use. Be sure keep them close at night, and give them some admission of air under the Glass or at the top in the day time.

To prevent Frosts from hurting your Plants, and Hail from breaking your Glasses, if you have any forewarning of either you may cover your Glasses with Pease Straw or Mats,

When you water your *Melons* (which they expect only in very dry and hot weather) water them at half a Foot distance from the Root and not wet the Leaves.

Place a tile under each *Melon*, it will lie the warmer upon it, and nip of the small shoots that exhaust the sap from the more leading branches.

Some perscribe to cover your Melon bed two or three inches with Sand, to encrease the heat of the *Sun* by reflection, but tiles under the Fruit may do as well.

Also it is advised that you shelter your newly removed Plants from the heat of the *Sun* at noon and untill four in the afternoon, as well as from the cold. And that untill the Plants have gotten leaves broad enough to cover their Stalks and Roots from the parching Sun.

When your *Melons* are as big as Tennis Balls, then nip off the shoots at some distance beyond them at a joynt. And the *Melons* will grow large.

Melons are known to be ripe when the Stalk seems as if it would part from the Fruit; when they begin to gild and grow yellow underneath. And by their fragrant Odour they yield, which encreaseth as they more and more ripen.

But

But every Melon appears not alike in colour when mature, therefore you muſt conſider their different Natures. If they are to carry far, then gather them when they begin to ripen: but if they are to ſpend immediately, then let them be through ripe.

When you ſpend them, you may put them before they be cut into a bucket of cold Water, to refreſh them, which will make them eat cool and pleaſant, as it will mend a bottle of Wine in hot weather.

Leave ſome part of the Stalk to the Melon, leſt by being broken too near, the Melon languiſh and looſe the richneſs of its taſte: Let them not when you gather them be too green, nor over ripe.

Preſerve the Seeds of thoſe that are moſt early ripe, and prefer thoſe Seeds that lodged at the ſunny ſide of the *Melon*.

Of Cucumbers.

Cucumbers have been in very great eſteem in the more Southern Countries, and of late Years are much improved in *England*, and become a general Condiment for the hot Seaſon of the Year, as they are crude from the Garden. And for the more cold ſeaſon as they are preſerv'd in pickle.

There

There are two ſorts of them, that is, the *large green Cucumber* vulgarly called the *Horſe-Cucumber* which the French call *Parroquets*. And the *ſmall white* or *more prickly Cucumber*, theſe are beſt for the table green out of the Garden, but the other to preſerve.

Parroquets.

They are Planted and propagated after the ſame manner as are the *Melons*: only they require more watring. And withal they are much more hardy.

Although watring makes the *Cucumbers* more fruitful yet they are more pleaſant and wholeſome if they have but little water.

Of Pompeons.

Pompeons are much more hardy than *Melons* or *Cucumbers*; yet are they tender in their firſt Springing and therefore are not uſually planted until *April*, and then for ſome time after they are come up defended from the cold.

They muſt be planted in rich old dung and require a large place to ramble in, they will lay their fruit on the ground or on Scaffolds made for that purpoſe or on pales or dry Hedges.

Of Squaſhes.

There are leſſer ſorts of them that are lately brought into requeſt that are called *Squaſhes*, the edible part whereof boil'd and ſerv'd

ſerv'd up with powdered Beef is eſteem'd a good Sauce.

Theſe and ſeveral others of the ſmaller kinds of *Pompeons* are raiſed and managed as the *Pompeon* or *Cucumber*.

CHAP.

Chap. VI.

Of Sallad-Herbs.

BEsides the great variety of Esculent and Alimental Plants which we have already named, the greatest part whereof may be eaten by themselves, and not as Sawces or Sallads, there yet remain several excellent Herbs and Plants that are of great use in the *Kitchin*, and are very pleasing and wholesom at the table, the principal whereof is the *Lettuce*, which contendeth with any of the former named Plants for Antiquity; it is an excellent Summer Sallad, cooling and refreshing, and for that use hath it been always propagated: And although there be several sorts of them, yet that one *Cabbage-Lettuce* being the best, eaten either raw or boyled, the others may be neglected.

Of the Lettuce.

They are usually sown in *February* and *March*, and unless the weather prove very cold, they will flourish and yield you a Spring Sallad in the beginning of *April*, but if defended by any good defence, then

then will they be fit for use before that time.

Those that are sown in *March* or *April* in good rich land will head very well; yet it is said they will head better if transplanted whilst they are young, although some are of another opinion.

You may blanch the largest *Roman Lettuce* when they are at their full growth, by binding them up with Straw or raw Hemp, or by covering them with Earthen pots fit to enclose them, and afterwards heating the Pots with long dung.

Purslain in some moist Islands between the Tropicks is a natural wild Plant, but here in *England* is propagated with some difficulty, and used as an excellent Sallad. *Of Purslain.*

It is tender in the Spring, the Frosts usually nipping it, but rather the drought or small dew Snails, for I have known more than once the seeds of *Purslain*, that have been spontaneously fallen in the Autumn, to flourish in the Spring notwithstanding the Winter, which indeed was not very severe.

But to have it early, you may sow it on the hot Bed, or in *April* in any rich soil finely dressed; and after the seeds are sown

sown, to clap over the Bed with the back of your Spade, and water it, for it delighteth in moisture.

If it be sown thin, or transplanted apart, it will yield you fair Plants, either for seed, or to pickle, or to boyl.

When the Seed looks very black, then gather the Stalks and lay them abroad in the *Sun*, which will the better maturate the Seed; lay them on a board or cloth to preserve them from spilling, and house them in the night, and expose them in the day until they are ripe.

It is said that the seed of three or four years old is better than the new.

Corn-Sallad. *Corn-Sallad* is well known to be an early and excellent Sallad in the first of the Spring; it is first raised by sowing of its seed, but afterwards it will sow it self.

Spinage. *Spinage* is known to be an excellent Herb crude or boy'ld, it is raised of seed sown early in the Spring, but much better if sown in *September*, that it may gain strength to withstand the Winter, as is by some affirm'd; these Winter Plants are fittest for the Lent season, the Spring Plants for the Summer.

Endive, &c. *Endive*, *Succory*, *Beets* and *Orach* are all of them good Sallads boyl'd, and are raised of seeds in the Spring.

Of

Of *Sorrel* there are ſeveral ſorts, but the largeſt is moſt proper for your Garden ſerving for many uſes in the Kitchin, it's raiſed moſt eaſily of Plants which ſhould not be ſet too near, it being apt to ſpread and grow large. *Sorrel.*

There is an Herb called *Patience* that is planted by ſets in ſome Gardens, and makes a very good boyl'd Sallad. *Patience.*

Borrage and *Bugloſs* are very well known for the excellent properties of their leaves and bloſſoms, and are not to want a room amongſt your beſt culinary Herbs. *Borrage and Bugloſs.*

Chervil may be ſown in the hot bed to make an early *Sallad*, or in *March* for other times: the Seed lies long in the ground, you may therefore ſow it at ſeveral times that you may have it young and tender throughout the Summer. This Sallad is much prefer'd for its fine biting taſt, before many other dull Herbs. *Chervil.*

Alliſanders are ſown in the Spring and live over the ſucceeding Winter and are blanch'd by ſurrounding them with long dung or covering them with Pots, and then are they fit to make an excellent Sallad, after the ſame manner is *Sceleri* ordered. Some ſet the Plants deep in the ground, *Alliſanders & Sceleri.*

ground, as before was directed for the *Leeks*. Thus, *Beets*, *Succory*, *Endive*, *Lettuce*, and these two Plants so blanch'd make very good Sallads.

Smalladge *Smalladge* is an herb some use in their *Pottage* and is raised by Seed.

Parsley. But *Parsley* is the most universally used in the Kitchin of all Garden herbs. *Pliny* said of it so long since, that scarce any man there was but loved it, and that it was in so great repute in his time that in *Achaia* they honoured it by Crowning the Victors, in their sacred Games, with Chaplets of it, and as divers were the opinions of Physicians then as now of the vertues and qualities of it. This however we know that is an excellent ingredient in most *Pottages*, *Sauces*, and *Sallads*, its way of sowing is generally known.

Garden Cresses. *Nasturtium* or *Garden Cresses* are sown in many Gardens for culinary uses.

Indian Cresses. *Nasturtium Indicum*, *Indian Cresses* or *Yellow Lark-spurs*, from a Flower are now become an acceptable Sallad as well the leaf as the blossom. They are raised for early Sallads in the hot bed, but sown in *April* will grow very well on ordinary Garden ground and give you a plentiful encrease of leaves and Blossoms.

Tarragon

Tarragon for its fine biting taſt is much uſed by ſome in their ſallads and is increaſed by Cions and tops. *Tarragon.*

There are ſeveral other herbs that are nouriſhed and propagated in *Gardens* for the uſe of the *Kitchin*. As, *Bloodwort*, *Clary*, *Arach*, *Lang de beuf*, *Nep*, *Violets*, *Strawberries*, *Carraways*, *Fennel*, *Dill*, *Muſtard-ſeed*, *Rocket*, *Rampions*, *Ramſons*, *Sage of Jeruſalem*, and *Marygolds*. The Methods of raiſing and encreaſing them being ſo well known as alſo their uſes, that it would be ſuperfluous here to mention them.

Chap. VII.

Of Sweet Herbs.

Of sweet Herbs. BEsides all those before mentioned there are divers *sweet Herbs*, as they are termed, that are very necessary for the compounding many excellent *Condiments* and to add a Relish to the best *Pottage*, which shall be here briefly enumerated.

Of Mints *Garden Mints* were universally used for sawces in *Pliny*'s time; and much commended for their singular *Vertues*, especially the young red buds in the Spring with a due proportion of Vineger and Sugar, refresh the Spirits and stirreth up the appetite, and is one of the best Sallads the Garden affords, There are divers sorts of Mints, but the red Garden Mint is the best.

Of Sage. *Sage* is also an herb or Shrub much used in the *Kitchin* and the young leaves thereof, especially of the *red Sage*, a very wholesome Sallad in the Spring. The slips thereof planted in *April* or *May* are very apt to grow.

There

There are several sorts of *Sage*, the *red*, *green*, *small*, and *variegated*, but the red is the best for most uses.

Of *Marjoram* there are several kinds, the *fine sweet* which is yearly raised of seed sown in *May*; the *vulgar sweet*, raised by slips and the *pot Marjoram* by the same way; there is also of this latter sort some that is *party coloured* or *White* and *Green*, and some only *White*, propagated for variety sake, the use of these is commonly known. *Of Marjoram.*

Thyme was anciently celebrated for its great plenty of food it yielded for *Bees* as *Virgil* writing of *Bees*. *Of Thyme.*

At fessæ multâ referunt se nocte minores,
Crura Thymo plena.——

But those that youthful be, and in their prime,
Late in the Night return, laden with Thyme;

Pliny saith that by the plenty or scarcity of the blossoms of Thyme you may foresee the plenty or scarcity of Honey for that Year, but the worth of this herb is not so much to be disputed in this place

as the uſefulneſs of it in the Kitchin, where it ought not to be wanting.

Of *Thyme* there are many ſorts. The *Vulgar Engliſh*, the *Lemon Thyme* ſo called from its moſt exact ſmell like a Lemon, *Gilded Thyme*, *Muſk* and *Maſtich Thyme*, which laſt is incomparably ſweet and ought to be carefully preſerved; any of the other are fit for the Kitchin.

Of Savory. Of *Savory* there are two ſorts, the *Summer* and *Winter*. The former is ſo called becauſe it is annual and raiſed of ſeed: it is uſually ſown amongſt *Onions*, becauſe there is an ancient tradition that the growing of it there makes the *Onions* the more ſweet; if you let ſome of it ſtand to ſhed its ſeed, it is ſo hardy that it will come up again the ſucceeding Spring although the ground be again digged.

The *Winter Savory* is ſo called becauſe it lives over many Winters, and is increaſed by Cions aſwel as by Seed; the uſes of both are very well known in the *Kitchin*.

Of Hyſop. *Hyſop* is nominated amongſt culinary Herbs although not ſo much in uſe in the Kitchin, as for Medicine or its natural ſweetneſs, it is ſo vulgar an herb that every one knows its propagation.

Of ſeveral others. There are many other ſweet Herbs that are

are useful in the Kitchin although not so generally as the former, but according to the particular occasions that require them as *Pennyroyal*, *Sweet Maudlin*, *Tansy*, *Balm*, *Basil*, *Burnet*, and *Coast Mary*, also *Lavendar* and *Cammomil* are not to be wanting, though not esculent in any case.

CHAP.

Chap. VIII.

Of some other Esculent Vegetables.

There are some Plants, Herbs or parts of them that are esculent either of themselves or in *Condiments*, that are not usually propagated in *Gardens* for that purpose, as the young buds of *Hops* boyl'd do much resemble *Asparagus* in the eating, and are very pleasant and wholesome where the other are not to be had, the young shoots of a new lop'd *Elder Tree*, being boyl'd are esteem'd a most excellent dish, the ordinary buds of *Elder*, and the red young tops of *Nettles*, and of *Water Cresses*, and also of *Brook lime*, every Herb Woman can tell you are good Spring *Sallads* or *Pottage Herbs*.

The green Tops of *young Pease* cut off and boyl'd are reported to be a most delicate dish, *quære* whether if they being cut off, the remaining Roots will not emit new shoots, and produce a fair crop of later Pease? If they will, then may you have

have late Peaſe better this way than by ſowing late.

Green Corn bruiſed yields a juice that is uſed in the Kitchin in Eſculents, and ſo may be reckon'd amongſt the number, notwithſtanding My *Lord Bacon* did not eſteem it eſculent.

Champignons, *Muſhromes* or *Mouſſerons*, have been ever reputed a dainty diſh, in the choice and preparing of which the ancient Romans took a great delight. Yet then were ſeveral perſons poiſoned with the uſe of ſuch of them, that were of a venemous nature, and in theſe colder Climates ſome ſorts of them are not much to be confided in. *Muſhromes.*

Thoſe that are edible here with us are either *Muſhromes* of the *Woods* and grow by the borders of *Woods* and *Forreſts* and are very large. Or *Muſhromes* of the *Meadows* and ſweet paſtures, which grow frequently where Cattel feed, which uſually flouriſh in the Autumn, and are moſt eſteem'd becauſe of their beauty and whiteneſs above, and Vermilion beneath, having alſo a pleaſant ſcent with them.

It is ſaid that you may raiſe *Muſhromes* in beds in your Gardens by preparing a bed with the ſoyl of *Mules* or *Aſſes*, and

covering it over four fingers thick with rich dung and after it hath laid a while to cool, then to caſt on it the parings and refuſe of *Muſhromes*, and old rotten *Muſhromes* with the Water uſed about them, and in a ſhort time your bed will produce them. Or ſuch water poured on Melon beds will cauſe it to ſend forth *Muſhromes*.

It is probable that theſe though unperfect Plants may have a Seed which ſown in an apt place may produce others of the ſame *Species*.

Century.6. My Lord *Verulam* in his Natural Hiſtory gives a very good character of them, imputing unto them two ſtrange properties; The one that they yield ſo delicious a meat, the other that they come up ſo haſtily, I have known one of about a foot in diameter almoſt round and full, of ſcarce twice twenty four hours growth.

The ſame honourable Lord tells you that its dangerous ſurfeting with them. And gives you ſeveral reports that the Bark of White or Red poplar cut ſmall and caſt into furrows well dunged will cauſe the ground to put forth *Muſhromes* at all Seaſons of the Year fit to be eaten.

He

He alſo adds a Report that Harts-horn ſhaven or in ſmall pieces mix't with dung and watred putteth up *Muſhroms*.

CHAP.

Chap. IX.

Of general Improvements, and Miscellaneous Experiments.

SECT. I.

Of improving Garden ground by labour only.

HAving thus briefly given you a particular of Ornamental as well as useful Parts and Materials for your several Gardens, and the specifical wayes of preparing, ordering and managing of the various Plants, Flowers and other Curiosities usually growing in them, it now remains that something be said as to the more general manner of improving your Ground, and preparing of Dungs, Soyls and Composts proper for your use, and the making of hot Beds, with many other things necessary to be known by such that delight in the improvement of Hortulans.

Of

Of the general mixtures of Earths the one with the other, to qualifie their natures by adding that of a contrary, I have before discourſed. Of the preparation of Earth without any ſuch mixtures Sir *Hugh Platt* hath given you an Ænigmatical deſcription, calling it his *Philoſophical Garden*, his Precept is, 'To 'pave a ſquare plot with Brick (if co- 'vered with Plaiſter of *Paris* the better) 'making up the ſides of Brick alſo, plai- 'ſtered likewiſe; let it be of a conveni- 'ent depth, fill it with the beſt vegeta- 'ble *Saturn* which you can get that hath 'ſtood two Years or one at the leaſt, quite 'within his own Sphere, make contrition of 'the ſame; And be ſure to avoid all ob- 'ſtructions, imbibe it with *Aqua Cœleſtis* 'in a true proportion, grind it once a day 'till it be dry: Being dry, let it ſtand 'two or three days without any imbibiti- 'on, that it may the better attract from all 'Heavenly influence, continuing then al- 'ſo a Philoſophicall contrition every day '(this grinding muſt alſo be uſed in the 'vegetable works where the Mercury of 'Herbs is uſed in ſtead of *Aqua Cœleſtis*) 'during all the time of preparation: Then 'plant what rare Flowers, Fruits or Seeds,

you

'you pleaſe therein, the ſame Philoſopher 'then tells you, that (if his theory of 'nature deceive him not) that *Saturn* 'ſo inriched from the Heavens, without 'the help of any manner of ſoyl, marl 'or compoſt (after one Years revoluti-'on) will make the ſame to flouriſh and 'fructify in a ſtrange and admirable man-'ner.

By his Vegetable *Saturn* may be underſtood ſuch earth that is moſt prone to ſend forth Plants, by its ſtanding ſo long within its own Sphere is only that it hath been covered either naturally by Turf, or Artificially by building or ſuch like that it hath been prevented from waſting its fœcund nature by ſending forth or bearing Vegetables, The beſt of ſuch reſted fruitful Earth is to be put in what quantity you pleaſe into your Brick or Stone Ciſtern (being made proportionable) but not too deep leſt it hinder you from ſtirring the Earth to the bottom and will not permit it to dry ſo eaſily, this muſt be reduced to a fineneſs: therefore it would not be amiſs to let it paſs the ſieve or ſcreen before you put it in your Ciſtern. The imbibition of this Earth with *Aqua Cœleſtis* can be no other than which Rain Water, which is

is exhaled from the Sea, by the influence of the Sun and in the Air attracteth a Volatile nitre which desending with the Rain on the dry Earth is soon imbibed again, this Volatile Spirit or nitre that thus ariseth in so great a quantity is that *Spiritus Mundi* that causeth all Vegetation, and wherewith the Air it self is filled, and by several wayes coagulated, and by the often irrigating the Earth with it, the Earth is the more fertilized; But this way of continuing the contrition or stirring it every day to dry it, makes the Earth much easier to attract the Water, which being added in a true or so little a proportion that it may not wet but moisten only, the Earth will leave its nitrous or vegetating vertue behind it when the Phlegmatick part fumes away again by the stirring of the Earth, which if it were added in too great a quantity would exhaust the nitrous Spirit that was before in the Earth. For it is a general observation amongst Philosophers that as the greater overpowereth the lesser so if the matter you add be volatile and greater in proportion than that which is fixt, it is apt to volatilize that which before was fixt being added unto it, and on the contrary that if the volatile

volatile matter be leſs in proportion than the fixt to which you add it, then is that which is fixt apt to fix the volatile: therefore did our Author wiſely add, that the imbibition ſhould be made in a true proportion, which is, that the rain water ſhould be onely for an eaſy humectation, and not too great a wetting, then he tells you that it ſhould ſtand two or three days without any imbibition, that is, between every humectation the Earth ſhould be throughly dried as the Air or Wind can dry it, which will take up ſuch a ſpace of time, notwithſtanding your daily ſtirring it, for the dryer any open terreſtial matter is, it doth not only the more eaſily attract, but more perfectly fixeth that which otherwiſe would be more volatile, although our Author hath not given caution of it, yet it is preſumed that the ſquare Plot or Ciſtern he preſcribes ſhould be covered or defended from the Sun which by his Rays is apt to attract much of the *Spiritus Mundi* or matter of Vegetables, where there is plenty unfixt; as is evident from the various ſmells that are exhaled by it, and colours alſo much ſooner faded by the Sun Beams than by the heat of Fire. And alſo from the Rain, which

which in great ſhowers is apt to over moiſten it, and in continued Rains to prevent its drying, therefore your Rain water ſhould be kept in a Ciſtern made for that purpoſe, where the longer it remains the better it will prove, ſuch vertue always encreaſeth whilſt it is in its proper Matrix, as appeareth by Urine kept long which yieldeth much more Spirit than whilſt it is new.

By the Authors ſaying that this grinding is to be uſed in the Vegetable work, where the Mercury of Herbs is uſed in ſtead of *Aqua Cœleſtis*. It's probable here he means the expreſſ'd Juice of Green Vegetables which Virtually hath in it the matter of Vegetables and may have the ſame effect on the Earth in a ſmall quantity and little time as the Rain water hath in a greater quantity by the long continuation of the operation.

This way of contrition, imbibition and coagulation enricheth the Earth after the ſame manner by covering it many Years with building, by which means Salt Peter is encreaſed; Only by this operation you may effect your deſign in one Year with labour and diligence which there you muſt wait many Years for, And by this

this may you heighten the vertue of your soyl to a far higher degree, it being manual, than the other which is natural and will not exceed the ordinary bounds limited in this Climate.

That our Authors *Saturn* is our natural and common Earth, and his *Aqua Cœlestis*, Rain Water, may be concluded from his own expressions, used in the same description of his Philosophical Garden which are, 'That if the Earth it self, after it 'hath thus conceived from the Clouds, 'were then left to bring forth her own 'Fruits and Flowers in her own time, and 'no seeds or Plants placed therein by the 'hand of man, it is held very probable, 'that this Heavenly Earth, so manured 'with the Stars would bring forth strange 'and glorious Fruits and Flowers *&c.* 'Which is not improbable if we consider the Fertility of the Waters of *Nile* which are first exhausted in those hotter *African* Regions by the power of the Suns influence (when in a due latitude,) and condensed by the Air far more fruitful, as well as the Earth, in *Nitre* there, than in these colder Regions yielding that great and fertile flood, whose precipitate or settling slime so far inricheth the dryed and thirsty

thirsty Earth that it not only spontaneously produceth abundance of Vegetables but Animals also.

I know no reason but by observing our Authors direction in this Climate a deligent Operator may advance the vertue of our Earth to the same Degree or greater then the *Egyptian* Soyl, and then may it answer his Expectations, in producing such rarities that by no other ways are here attainable, for if any man would advance or improve nature, he must tread in natures steps and trace her to the Foundation. Next unto this extraordinary improvement of Earth by labour, without any other mixture than Earth and Rain water which many will not experiment because of the length of time required in it; you may facilitate the operation by often stirring, or digging your Land and reduced it to a fineness by skreening it, which also is a means to cleanse it from Weeds, Stones, Worms, *&c.* that annoy your tender Plants, by reiterating of which work you expose the Earth thus opened to the Air, Frost, Snow and Rain, and capacitate it to receive the benign Influences of the Heavens, and prevent the exhausting of the nitrous Spirit by the growth

of any Vegetables in it. This operation the longer you continue it the better, the time for the beginning of it is not material, so that you let it receive the effects of both extream Seasons: like unto this are your fallowings of Land for several grains especially the fallowings & twi-fallowings for Wheat long before the last plowing at the Seed time, and in several cases a contrition or dragging after the fallowings which proves a considerable improvement of stiff Land. Thus may you see how nature is improved by industry only and that but by treading in her own Steps, for Earth often trod on by Men or Beasts in the Streets or High ways is very much enriched by such expoſure, and Earth defended from the Sun and Air in like manner becomes fertile, although from different causes, the former from the volatil Nitre and other influences in the Air, Rain and Snow, the latter from the condensation of the *Spiritus Mundi* or nitrous breathings of the Earth. And both by reason that those fertile qualities are not exhausted by vegetation.

But as this latter operation is more facile than the former, so you cannot expect that it should produce effects answerable

ble to the other, which is very much to be prefer'd by ſuch that are curious, although this latter way may yield you a ſufficient recompence for your labour yet the former cannot but far tranſcend it.

SECT. II.

Of ſeveral wayes of enriching Earth by mixtures.

IT is without queſtion that Earth or Mould is to be made more fertile than naturally it is, by mixing therewith ſeveral materials that contain in them much of the vegetating Spirit, as the Aſhes of any manner of burnt Vegetables. For by ſuch burning is waſted the more phlegmatick and uſeleſs moiſture, and are fix'd the more ſolid and ſubſtantial parts: the ſame effect hath fire on the Turf or rooty ſurface of the Earth, this ſmegmatick or oyly matter that is left by the fire, in a moderate proportion applyed to any Earth highly enricheth it and makes it apt for fructification, as appeareth by the vulgar experiment of Burn-beating of Land which yieldeth ſo fair crops of Wheat,

and other grain. In which operation the Ruſtick obſerves that over burning the turf is injurious, and that a more moderate burning maketh the ground more fertile, the reaſon is plain. For in the burning of any Vegetable a gentle eaſie and ſmothering fire doth not waſt the volatile nitrous Spirit ſo much as a quick, but cauſeth much more of it to fix and remain behind.

Theſe fixed Salts that are thus obtained are the principal Salts that are ſo much celebrated for the improvements of Earth to render it more fruitful, although there are many other Salts neer in affinity to theſe that do in ſome Degree meliorate Earth, as the Salts that are in *Blood*, *Urine*, *Soot*, and ſeveral other things of the like nature, by the mixture of thoſe materials with the Earth or ſprinkling it with them whereby the Rains uſually carry down their vertue to the Roots of your Plants.

The parts of Animals as *Skins*, *Hair*, *Feathers*, *Fleſh* and *Bones*, *Horns*, *Hoofs*, *&c.* Contain in them much of theſe Vegetating Salts although Volatile, yet in ſuch compact bodies, ~~that~~ they continue until they are by your Plants attracted, as many

ny Husbandmen have made expediments of the extraordinary vertue that is in old Woollen rags in fertilizing Land for Corn giving ten times the price for a load of them to lay on their Corn ground, that they will for a load of dung, and are yet great gainers by it, and fetch them from near *London* into *Hartford-shire* into the bargain: *Wool*, *Hair* and *Feathers*, are neer of a nature and therefore have neer the same effects.

The *fish* and *bones* of *Beasts flesh*, *&c.* Are generally known to add very much to the improvement of Land but for garden uses, it will be more conducing to your purpose to let the same be throughly putrefied and reduced to a moderate compost with Earth before you apply it, for all nauseous and ill savoured materials are to be excluded your Gardens, either for the Kitchin, or for delight.

Horns, *hoofs* and *skins* contain in them much of a rich volatile Salt: and it hath been anciently observed, and in such Countries where naturally the ground is more replete with Nitre and more fertile than here, that these materials have very much fertilized garden ground especially for the *Asparagus* that requires strong nou-

riſhment, therefore the ſhavings or odd pieces of Horn, and the leſſer horns and the Hoofs, and other excrementitious parts of Beaſts at the common ſlaughter houſes may be obtain'd to make your deep Beds for *Aſparagus*, *Artichoaks*, and ſuch like, and may not be unuſeful in enriching your ground for your choiceſt flowers.

The ſhreds of *Tan'd Leather*, partaking aſwel of the Salt of the Oaken bark and lime, as of the beaſt, muſt of neceſſity prove a very great improver of your garden ground, and may be had in great quantities at the Shoomakers, where they uſually burn them. Theſe ſhreds ſoon rot and with *Rags*, *Hoofs*, *Horns*, *Hair*, *&c.* Mixed with a good quantity of Earth and laid in a Pit and ſometimes watred will make an excellent compoſt for your Kitchin garden, if afterwards diſpoſed of in proper Beds.

Of Sheeps dung. Take Sheeps dung and put water to it (in ſome Veſſel) ſo much as by ſtirring may reduce it to a pap, and when it is all throughly diſſolved mix ſome fine ſifted Earth with it; let the Earth be four, five, or ſix times more in quantity than the Sheeps dung, according as the Earth is in goodneſs

goodneſs: if it be a poor Sandy Earth, the more of the Sheeps dung it requires to enrich it; if it be a ſtiff ground, the more it requires to make it light, but an indifferent mellow Earth requires the leſs, for Sheeps dung is one of the richeſt of dungs. As may be obſerved from the great improvement that is made by Flocks of Sheep being folded on the poor champion Lands, where ſuch land yields much Corn, when not being ſo improved it will yield but little and this from one only folding in ſeveral Moneths, or ſometimes in a whole Year together, Deer and Goats dung are much of the ſame nature with Sheeps dung. The reaſon of which extraordinary fertility in that ſoyl is from the well chewing the food, the long continuance in the body, and the not (or but little,) drinking of the beaſt. For Sheep and Neat chew the cud, by which means their food is made fine, both theſe (and ſo do Deer and Goats) retain their meat longer than Horſes or Swine who feed more groſly and haſtily, the dung of the one being like wiſps of Hay, of the other like a mixture of all ſorts of filth. Alſo *Sheep* and *Deer* drink but little which make their dung and their Vrine (which

also is very rich could it be preserved) very fertile. *Neat* drink much which very much tempereth and allayeth the heat and fertile nature of the soyl. Earth thus mixed with Sheeps dung dissolved, is very excellent for most sorts of *Fibrous* rooted *Flowers*, because the decay of the dung (which will be in time)leaves the ground porous that the fibres thereby aswel insinuate themselves and spread abroad as they do contract the richness the dung affords them: *Tuberous* rooted *Flowers* also affect this mixture: *Artichoaks* delight in it exceedingly, and Sheeps-dung applyed to the Roots of them, and then often watred, whereby the vertue of it may be conveyed into them, makes the Plant yield you fair fruit; most garden tillage affect it, for it is not only a very rich soyl but renders the ground light and porous, which is very advantageous to Tillage.

Neats dung. A mixture of Neats dung after the same manner, is very good for most of the same uses as is that of Sheeps dung. And better in some particular cases, for that if you have occasion to remove or plant any good Flower in the Summer time or out of its proper Season, such a mixture of Earth and Neats dung made into a liquid

pap

pap and the Tree or Flower placed in it that the liquid matter may encompaſs the root, will ſo adhere to it, and be ſo cool and moiſt that it will cauſe the plant to thrive as well as if it had been planted or removed in its proper ſeaſon.

Horſe dung.

Horſe dung whileſt new is the hotteſt of dungs laid in a great quantity together, by reaſon that a Horſe chews his meat but little, feeds haſtily, and evacuates it in a ſhort time; ſothat like chopt Straw or Hay but beginning to ferment in the belly of the Horſe, it continues fermenting after it is in the dunghil but if it be laid up with the litter that is uſually moiſtned with the Urine of the Horſe, and after it is throughly rotten, which will be much the ſooner if it ly in a moiſt place or be often watred by Rain or by hand and turned withall, or caſt, as the Huſbandman uſually terms it, it then makes an excellent compoſt for your Kitchin garden.

Swines dung.

In your Swine-yard or places where Swine uſually tread, or feed, the Earth is very much improved by their dunging and piſſing, which trampled into and mixt with the Earth makes it become a very good compoſt, eſpecially to allay that rankneſs or over freeneſs of ſome very light

light and rich Soyls that breed the canker in Trees and too many Worms and other vermine and insects that destroy your choicest Plants. This dung or earth so inriched being a fat cooling compost, may be with success used in both your Gardens. but rather amongst your fruit trees where it excels.

Asses dung. Asses dung is near of the nature of *Sheeps dung*, *Deers dung*, *&c.* spoken of before, although not altogether so rich.

Pigeons dung. The dung of all corn-fed Fowl is very hot at the first, especially that of Pigeons, because they feed hastily and evacuate the same digested in a short time and Urine not. So that their drink is no more but only to digest and nourish and not to carry away any of the vertue of the meat nor lessen the strength or fertility of the dung. Experience hath taught the Husbandman that in the Champion Countries where great store of Pigeons dung is to be had, the same sown but thinly with Barley makes a poor ground yeild a good crop, for when but thinly sown the Rain and Air soon qualifie its present heat, which if it were laid thick would burn the Corn especially at that season, or else make it grow too rank, which is as great a fault as its being

being too ſhort. Therefore you may well conclude that theſe dungs laid in a heap in the open air and moiſtned by the rain or otherwiſe until their heat is over, will make a moſt rich compoſt for either Garden, but more eſpecially for your Kitchin Garden.

Malt duſt. I only here give you a caution not to uſe Malt Duſt in your Garden, for there are many ſeeds of pernicious weeds in it, that have paſſed all the imbibitions, fermentations and exſiccations of the Malt, and yet retain their vegetating nature, and will furniſh you with new ſpecies of weeds out of the fields, that your Garden before was not acquainted withal.

Mud of Ponds. The ſetlings of waters where there is leaſt current is the beſt, but the Mud or reſidence of any water unleſs it be over much ſandy is excellent to qualifie the nature of your ground, if your ground be light then uſe ſtiff Mud, if your ground be ſtiff or cold then uſe light or ſandy reſidencies: theſe mixtures are good for all ſorts of Garden ground.

Salts. Any aſhes or other matter whatſoever that contains ſalt is good, ſo that the quantity of the matter containing the ſalt, doth not too far exceed the Salt contained in it,

as

as usually Wood ashes after they have been in the Washhouse, Sopehouse or elsewhere have the most of their Salt extracted, and then applyed to your ground sterilizeth it unless it be to a strong Clay ground, then it will make it lighter although not richer.

The Ashes of any burnt vegetables are excellent as before we observed, a mixture of Lime is very good in most grounds, but the salt of Lime extracted by water, and your ground watred therewith, is much to be preferred. It hath also this singular property, that it makes the worms soon leave the place watred therewith, and expose themselves to the Air where they soon perish, or to the Birds who devour them. The same effect is wrought by any *Alkalizate Salts*, or salts produced by fire.

Muc. The *Murc* or refuse after the pressings of *Cider* and rotten fruit, are very good to mix with your earth, but it must be after it hath lain a long time in some pit or heap until it hath lost its savour, and until the seeds or kernels are dead, lest they germinate and incommode your Garden.

Rotten wood. Any drexy wood or the dust of the wood-pile, but more especially rotten willow,

willow, is excellent to make the Earth light for most fibrous rooted Flowers. The same is Sawdust if it first lye in a moist place until it be rotten, and hath its acidity abated or digested.

Straw or any dry vegetables become rotten and mix'd with Earth, maketh it light and fit for your choicest Anemonies, and all fibrous rooted Flowers. *Straw.*

Tobacco dryed or cur'd, and afterwards mix'd with your Garden mould, will doubtless exceedingly enrich it: For it is of a very high and strong nature, and containeth much of a Volatile Nitrous Salt in it, and is reported to be equally as effectual in the tanning of Leather as the Bark of the Oak, which if it be true, as I have no reason to doubt it, it may prove a considerable improvement of many Country farms, and of great benefit and advantage to the Nation in general, either of which uses is better than that to which it is now usually put unto. *Tobacco.*

SECT.

SECT. I.

Of Watring Gardens.

Fat waters.

BEſides the mixture of ſeveral materials and compoſts with land to make it fruitful, you may add enriched waters which ſerve where you cannot conveniently change your ground, or remove your Plant as in ſeveral *Flowertrees*, and *Artichokes*, *Aſparagus*, *&c.*

That water is very good that is taken out of ſtanding pools, where Cattle uſually reſort to ſhade or cool themſelves in hot weather, and leave their dung in it, which by the ſtirring of their feet enricheth the Water. Ducks and Geeſe alſo much improve ſtanding pools where they frequent.

Several waters may be prepared in which you may ſteep or macerate your ſeeds or pulſe, to make them ſprout the ſooner or come the fairer, and with the ſame water may you irrigate your ground: many Receipts there are to that end, I ſhall only mention ſome of them.

Take Sheeps dung well diſſolv'd in warm water, and after it hath ſtood twelve hours ſtrain

ſtrain it through a courſe cloth with compreſſion, for it is ſo ſlimy that it comes through with difficulty, therefore I ſuppoſe a decantation may ſerve. To two or three Gallons of this liquor add a handful of Bay ſalt, and ſomewhat a leſſer proportion of Salt-peter, and let them both be diſſolved in the former water, which to expedite let it be made lukewarm and ſtirred often, in which liquor let your ſeeds lye for twenty four hours or more, till they are throughly ſwelled. Pulſe need not to lye ſo long, then take out your ſeeds or pulſe, and expoſe them thinly on ſome floor to the Air (not the Sun) until they be half dry, then ſow them. It is alſo preſcribed that the remainder of the Sheeps dung that was not made liquid, ſhould be dryed and calcined, and the fix'd ſalt extracted out of it, and added to the former compoſition, but it's more probable that another parcel of Sheeps dung calcined, would yield more and better ſalt, than the remaining part of the diſſolved dung. This latter part makes the proceſs too difficult and troubleſome, and adds but little to the virtue of it, any other fixed Salt having the ſame effect as that ſo hard to be obtain'd.

This

This Liquor is more effectual for the watring of Plants than it is for the maceration of seeds, and so are any other salt waters, Some add a greater quantity of Salt-peter, and Bay-salt, some only Salt-peter, others use Pidgeons dung instead of Sheeps dung, also Lime water after that manner enrich'd with *Sheeps* dung, *Pidgeons* dung or *Neats* dung, is equal in vertue if not exceeding thatto whichSalt-peter or bay salt isadded. EveryHusbandman hath experimented the effect of Lime, the Salt only extracted by the rains enriching the Earth occasioning so plentiful a crop, the other remaining part like a *Caput Mortuum*, only tempereth the land for the future,and maketh it more sad where before it was too light, which if the Land did not require it, then doth Lime (after its salt is wasted) much injury to the land whereon it is laid.

Nitre or Salt-peter only,dissolv'd in water a pound to four or five Gallons is held to be very effectual to enrich barrenMould this agrees with our observations about earth covered with building,or otherwise defended from Sun and Rain, for the generation of Nitre.

Some commend the sprinkling of Milk and Rain water on theBeds,first sifted over with

with Lime pulverized, whether by pounding or slacking with water it mattereth not (neither of which can improve or abate the vertue or quantity of its salt, the thing we desire) and after every watring sifting more Lime. This way may not be amiss for such lands that the *Caput mortuum* of the Lime remaining after the salt is extracted, will not prejudice, and for such plants that the Lime lying on the ground will not injure. The Milk may be left out, not signifying so much as the value of it amounts unto, the liquor wherein flesh meats (whether fresh or Salt) have been boyled is much better and easier obtained. The Salt of Lime (extracted with water in some large wooden vessel) containeth in it the same improving vertue, and is less troublesome to make use of, and free from the inconveniences that attend the other way.

Much more might be said concerning these improving liquids as well as solids, but that the most learned and experienc'd of Rural or Hortulane Authors, hath lately been very copious on the same subject. *Mr. Evelin.*

Only I may here advise the unexperienced not to water his plants in either Gar-

den, with a cold Spring or Well water, if he can obtain any other, which if he cannot, then to expose this to the Sun or Air some time before he useth it, or enrich it by some pinguid mixtures, as Lime, Ashes, Dung or such like will quickly qualifie it for his purpose, by abating the sudden coldness of it to the Plant. For it is a very great injury to most tender Plants to be diluted with cold water from the Well or Spring, and check their growth exceedingly, as may be observed in a bleeding Vine, to the naked Roots of which if you pour store of cold Spring or Well water, it suddenly checks the ascension of the Sap, by means whereof the bleeding ceaseth, and the wound consolidates again before the more liberal ascent of the sap, much more then will it check the growth of a weak Herb or Flower.

Also as it is observed to sow in the dust, whereby the seeds gradually swell from the cold dews of the night and air, and are made ready to sprout with the next rains, so it is not good to water new sown seeds until the long defect of showers invite you to it, some seeds, as *Radish*, *Lettuce*, *Gilliflower* seed *&c.* remain not long in the Earth, and therefore may in two or three days

days, for want of rain, be watred by hand; But *Tulip*, *Auricula*, *Parsley*, *Carrot* seed *&c.* lye longer in the ground and require not so speedy an irrigation.

All seed ought to be watred by the smallest or rain-like drops as you can, and not too much, for hasty watring and hasty showers discover them.

For most Flowers and Plants whose leaves lye near the ground, it is best to water them at some distance by making a Ring round the Plant a little hollow, and pouring the Water into it, whereby you annoy not the leaves with your discolouring water, or chill them with the coldness of it.

In all warm weather the evening is the best season to water in, because the water will have time to sink into the earth, and the Plant to attract it before the heat of the Sun exhales it, but in cold weather and when the nights are cold, the morning is the most proper time that the superfluous moisture may be evaporated before the cold Night overtake you, and chill your Plant.

By no means use liquors either naturally hot as spirits, or artificially made so by heating it over the fire.

A Plant that delights in moisture or a drooping Plant that you may suppose Water will preserve, may be watred by filtration. Which is by placing an earthen pot full of water near the Plant, and putting therein the end of a list of woollen cloth, the other end thereof to hang down on the out side of the pot to the ground, near the root of the Plant. By means of which list if it be thick enough, the water will filtrate or distill over the brim of the pot through the list of woollen, so long as any water is in reach of the list in the pot, always observing that the end of the list in the out side of the pot, be longer than that in the inside, and that the list be thorowly wet before you add it. The reasons of this operation which many Country Colona's daily experiment we will not here discourse of.

Watring of Flower pots. To water your Flower pot that the water may the easier descend to the bottom and throughout the whole pot, you may before you fill it with earth place in it a pipe of Lead, Latton, or such like, close at the bottom with divers holes at the sides of it, let the Pipe extend in height to the top of the pot, and when the pot is full of Earth and planted with Flowers,

and

and that you cannot conveniently otherwise water it, then with a funnel fill the pipe with water, and reiterate your filling of it until you think there is enough, and by the holeson the sides of the pipe, the waterwill moisten the whole pot of earth. The water you use here, ought to be meliorated by some of the former ways: For Earth thus separated from the ground, is more apt to decay than that which is remaining on its natural foundation which continually receives an improvement, by perspiration of the Vegetating Spirit.

Watring pots.

There are several sorts of watring pots in use for Gardens, the most useful is the common watring pot made of tinn'd plate or Laton: The nose or end of the Spout whereof is covered with a cover wherein are many small perforations, that the water may force through in small streams and besprinkle your plants or seeds like unto Rain. This Cover is made to take off and on to cleanse at pleasure.

There is another sort of Watring pot that hath a small hole at the bottom and another at the Top, so that when you sink it into a Vessel of Water, it will fill by the lower pipe or hole, the air passing out at the hole at the top where the handle is also:

when it is full take it by the handle and ſtop the hole with your thumb, and when you come to the Plant you intend to water, you may eaſe the hole whereon your thumb lies, and as you pleaſe let the water out at the Pipe in the bottom, for as the Air comes in at the top, the Water will iſſue out at the bottom, and ſo may you ſtop it, and open it with your thumbs, at your pleaſure, with this pot you may eaſily let the water down on your Plants that can bear with a waſhing ſhower.

You may water any ground by the firſt ſort of watring pot, with any enriched or thick water if you take of the cover of the Pipe and convey the ſame water about the Roots of any Plants without fouling the leaves or flowers.

Alſo you may have a ſmall Engine made like one of the Engines for the raiſing of Water to extinguiſh fire withal, and place it in a frame to drive to and fro about your Garden, you may fill it with Water and the Spout or Pipe with a perforated cover like unto the Common watring Pots (but not ſo broad as to ſpread the Water ſo much) with this Engine may you imitate Rain, over any of your Beds at a diſtance, and waſh your wall

Trees

Trees from Vermine and refresh them at your pleasure.

Any of these Watring Pots may be preserved for many Years from Rust to which they are very apt by painting them over with Linseed Oyl and Red Lead. *To preserve your Watring Pots.*

SECT. IV.

Of making hot Beds.

IT is evident to all that most Plants do naturally observe the season of the Year in their Germination, growth, and maturation; And although they are removed into another Climate, yet do they incline to the observation of the same time as they did in their own former natural place of their growth, as the *Persian Iris*, *American Strawbery*, and several others, which make them the more acceptable as they come earlier or later than others of the same kind. So is it with many other Flowers, Fruits or Herbs: For we annually observe how acceptable a dish of early Pease is over what they are when later and common and so are *Asparagus*, *Cucumbers*, *Melons*, *&c.*

The growth of most Plants is quickned by a warm position, as under a warm Fence or Wall, and by an artificial heat, as by being planted against a place where fire is usually kept, or by watring them with Waters impregnated by hot dungs, which will very much accelerate Germination.

To raise a Sallad in few hours. If you would have Herbs to sprout immediately, then lay a Bed of unslak'd lime powdered, with a mixture of Ashes if you please or without, on that a lay of hot dung, and on that another lay of lime, and then on that a lay of fine rich Mould, wherein sow your seeds, as *Lettuce, Purslain, Corn Sallad, Parsley, &c.* First steep'd in Whitewine or some of the former prepared Waters, and water them when sown with some of the same richest Waters, and they will suddenly appear above ground and as you water them so will they prosper. This should be done within doors lest the coldness of the Air should impede their growth, the often watring them facilitates their nourishment.

But the hot Beds that are most useful, and whereon you are to raise your tender exoticks, and your early flowers and also

to

to raiſe and bring forward your *Melons*, *Cucumbers*, *Cawly flowers*, *&c.* Is uſually made in *February*, and after ſeveral manners.

Some preſcribe the making of it, by laying of hot Stable dung that hath lain in a heap, mixing the neweſt with the old, and laying it about four foot broad, the better to preſerve its warmth, three foot high, and as long as you have occaſion or materials. This Bed well trod (to excite the heat) is to be covered about four inches thick with very fine rich Mould, the top of the bed being firſt edged round with board to keep up the Mould: thus muſt it ly until it hath paſſed its greateſt heat, which you may prove by your finger, for it ought to be but warm not hot. In caſe its heat leſſeneth at any time, you may encreaſe it by applying new dung to the ſides of your bed, on this may you ſow your Seeds.

There muſt be ſome frame Arch-wiſe, or flat, over this hot bed, that a covering of Mats or Straw hurdles may be ſpread over it, every night and in cold days: make your covering ſo that it may aſwel keep out the Rain and Snow as the Wind.

But

But the best description of a hot bed is that of Mr. *Evelin* in his late Philosophical discourse of Earth, To this effect, dig a pit about four foot deep, of breadth and length as your occasions require, wall this pit on every side with Brick, or erect your wall above the ground, or part above, and part under. Then fill it with hot dung from the Stable and tread it well. In this place wooden Cases of about a foot in depth bored full of awger holes at the bottom, fill them with Earth rich and light, and add hot dung between them, in which Cases sow your Seeds, and these Cases and the Earth in them will be kept warm by this means during the whole season wherein a hot bed is necessary, you may provide a shelter against Rain and cold over the whole if you please, and you may have frames of glass over some of your inside cases where there is most need, others you may leave open as your seeds require. By this means have you your Pit and Cases every Year ready to your hand, requiring only a supply of fresh dung.

SECT.

SECT. V.

Of Miſcellaneous Experiments.

THe often removing of Flowers in their proper Seaſon preſerves their colours, eſpecially their variegations, for long ſtanding in one ſoyl cauſes any Plant to degenerate, partly becauſe the Plant hath exhauſted the proper nouriſhment for it, out of that place where it hath ſtood ſo long, and partly becauſe the ſoyl is apt to change the nature of the Plant, being exotick to it, as is uſually obſerved in *Beans*, *Wheat*, *&c.* ſown on the ſame ſort of Land, although not on the ſame parcel, is apt to degenerate. Therefore removing of Plants and alteration of the ſoyl is a good way to improve them, ſeveral Eſculents grow the fairer, as *Cabbages* will not live well in caſe the young Plants be not three or four times removed before the Spring. The ſame is obſerved in *Lettuce*, *Onions*, and ſeveral others. If they are removed into improved Earth every time they will eat more tender and better. *Often removing of Plants.*

Flowers are more in eſteem when they come early or when they come late, to make them early the means are generally known

To make Plants come late.

known, but the retarding of their flowring, often removing and preventing the usual excitements of the Sun and Air, will effect: For the disturbing the Roots in the removal is a great hindrance to their attraction of nourishment, and it will be several days after the removal before new fibres will shoot forth to gather new nourishment: and the standing of a Plant prevents the digestion of the sap by the heat of the Sun and Air. This is of great use in retarding the flowring of several Flowers, and also the growth of several Esculents, as Cauly-flowers, *&c.*

Plants to defend from cold and Sun

It is usual to defend several tender Plants from the cold in the Winter to preserve them, and to expose them to the Sun in such Winter days that prove clear, which exposure injureth the Plant more than the cold. For the Sun Beams in Frosty Weather especially if there be Snow on the ground, makes a Plant faint and sick. As is observed in the Laurel which if it grow against a North wall or in the shade, although open to the severest Winds, yet retains its green colour all the Winter, but if it stand in the Sun, it changeth yellow, only from that cause. The same is observed of several tender Plants that

are

are usually sheltred from the Winds and exposed to the Sun, yet it is not improper to give Plants Air and also Sun in mild Weather at any time of the Winter, which cannot hurt them.

Often cutting of Plants.

The cutting off of the buds and Branches of Flowers, leaving only one or two or more as the strength of the root will bear, causeth it to yield the fairer Flowers than otherwise it would do: after the same manner if Herbs be often cut they gather the more strength, yield the fairer leaf, and take better root, and endure the Winter the better. The cause is, that the sap hath less to nourish, and that which is nourished must therefore be the stronger; and the less the sap is expended above, the more strengthens the root in the ground as may be observed in most Trees that are lopped. And then do they afterwards issue forth the fairest Branches, some Plants usually perish in the Winter for want of being cut in the Summer precedent, and from the same cause, as *Wall-flowers, Thyme, Marjoram, &c.*

Plants to continue long.

Some Plants are too apt to waste their sap in Flowers and thereby shorten their lives, as *Gilly-flowers, Stock Gilly-flowers* and some others, which if their blowing shoots were

were nipt off they would gather ſtrength and continue longer, for the waſt of the ſap overmuch makes the Plant feeble and uncapable of enduring any ſeverity of Winter or Summer, as is ſometimes obſerved in young Fruit trees, that they bloſſom themſelves to death: and ſome I have known to grow themſelves to death, for the freer the ſap is in expending it ſelf in Branch and Bloſſom the more tender is the root, which becomes a prey to the Worm and Canker as doth the Branch to the ſevere Air. The way to prevent which is preſcribed in the laſt mentioned experiment.

To melirate Plants. It is obſerved that all Herbs wax ſweeter, both in ſmell and taſt, if after often cutting you take the latter Sprouts, becauſe the ſap is the longer digeſted and the root the ſtronger. The ſame is obſerved of Eſculents, the young Buds or Sprouts of old Roots eat more tender than the firſt cuttings.

Onions large. My Lord *Bacon* ſeem'd to approve of the opinion that *Onions* wax greater, if they be taken out of the Earth and laid a drying twenty days, and then ſet again. And the more if the outmoſt pill be taken of all over, but mentions not at what time of

of its growth this is best to be done; however it is a sufficient encouragement for Gardeners to take up the *Onions*, where they casually come up too thick, and plant them in thinner places. Several Plants are so removed as *Turnips*, *Lettuce*, *&c.* and are the fairer, therefore this observation may be of use.

To preserve Plants from Snayls and Worms.

Sift ashes, or quick Lime beaten small, about any Plant, and it will preserve it from Snayls or Worms, by reason their naked bodies cannot endure the sharpness of the Salt of the Ashes or Lime. So if you water the ground with the Water wherein Lime or Ashes have been steeped, the Worms will soon leave the ground, where the Water gets into their holes: from the same cause. You may also in a Summer Evening (after Rain) with a Candle draw the Worms as they ly on the ground, and put them in a Pail and dispose of them as you think fit, but you must tread soft, for the least motion of the ground maketh them retire into the ground. Thus in two or three moist Evenings may you clear a whole Border of the greater Worms which are most hurtful.

Snails and Worms are all of them of an Herma-

Hermaphroditical nature, and are all breeders, and when they couple are easily destroyed especially the Snails who couple from the Spring until *Midsummer* and after. And lay their Eggs in the ground, you will find them with their bodies buried in the warm dust and only their shells above the ground, when you take them out you must rake out their Eggs and destroy them, for otherwise they will lie there until they have strength to Travel, and then, some in the same Year others in the Spring following, you will have them dispersed amongst your tender Plants and your Wall Trees, where after a shower you may pick them off.

To know good Seeds. If you doubt of the goodness of your Seeds, take some of them and put them in fair Water and set them in a gentle heat Twenty four Hours, and if they are good they will Sprout, else not. Also you may wash your Seeds in Water and the dead and light will swim, and the good and heavy will sink, but they must be all throughly immerged, else you may be deceived.

To defend Plants from Frost. Secure the Root as well as you can from the Frost: for if you defend that, the Branch seldome suffers, but if the Root be

be not secured, although the Branch be never so will defended it will perish. Therefore earth up the Roots as well as you can, and place any ordinary defence about the sides of the Plant, and no Frost will hurt it, (unless it be your tender Plants that are for the Conservatory) Thus may *Gilliflowers*, *Wall flowers*, *Stock Gilly-flowers*, *Artichokes*, *&c.* Be preserved.

Set tender Plants dry.

Some Plants, if the Roots stand dry, the Frosts rarely hurt them; which if moist, they are usually destroyed, as *Rosemary*, *Sage*, *Wall-flowers*, *&c.* Either of these will grow on a Wall and endure the severest colds, but if they stand in a moist ground although the Branches be never so well defended they are apt to be destroyed with great Frosts. The cause is, that Water or moisture stagnating about any Plant and a Frost following is apt to mortify it, when a Frost shall scarce injure a dry Plant. It is the same which young and tender Fruits, a Frosty night after a wet day destroys more Fruits, than ten dry Frosts can do.

To defend your Plants from Ants.

If you lay saw dust about any Plant it will defend it from the busy *Ants*, who cannot easily pass over the saw dust be-

cauſe it is ſmall and looſe under them, that they cannot have any ſure footing, and ſo by that means are forced to ſteer their courſe another way. Thus may you defend your Wall Trees from *Ants* by laying ſaw-duſt about the Roots of them.

Some anoint the ſtems of their Trees with Tar to prevent the *Ants* from aſcending them, but then it is beſt to bind Paper about the ſtems and anoint the Paper, for Tar is apt to injure the Bark of your Tree.

Alſo you may bind about the ſtem of the tree, Wool about four fingers breadth, which will puzzle the *Ants* to find a way over or through it: be ſure to leave the Wool rough, that they may not find a way over the threds you bind it withal.

Moſs to deſtroy. Many of your Flower Trees will in ſome ſorts of Land by long ſtanding become moſſy which not only defaceth but very much injureth the tree, and it is a ſign the Tree diſlikes the ground it ſtands in. To prevent the growing of it, and the encreaſing of it whilſt it is yet but newly infected, you muſt remove your tree into better ground more natural to it, or in caſe you are willing to have it ſtand in the ſame place where now it is, then you

you must take it up and alter the ground and enrich it as it ought to be, and then you may replant the tree in the same place. And as the tree thrives and encreaseth in shoots so the mos will decline, the sap being wasted and expended more liberally another way.

But if the Mos hath long continued on the Tree, your best way is after Rain that the Mos be wet and will easily come off, to scrape it off with a knife of Bone or Wood, for in dry Weather it will not come off so well.

Mos a great annoyance to Trees and ground.

Mos is a very great annoyance to Trees and to the ground it self, and is a manifest sign of a defect of the more nourishing juice that is in fruitful Plants or Soyl, it is a spontaneous excrescence, as many other Vegetables are, which made the learned Philosopher *Van Helmont* say, that its Seed distilled from the Heavens, which is no more than if he should have said, that it proceeded from the natural inclination of the matter on which it grew, animated by the Cœlestial influences, which gave it life, but the matter on which it grew gave it form, it varying according to the diversity of the matter, from whence it receives its nourishment; some Mos be-

ing hard, ſome ſoft, ſome White, others Green. There is alſo ſweet Moſs that grows on *Apple-trees*, and *Poplar-trees*, and the Moſs of the *Larix-tree* is ſweet in the burning. And although all theſe Moſſes are meer excreſcences, yet do they bear ſeed and encreaſe, as hath lately been diſcovered by a learned Virtuoſo who by the help of a Microſcope hath obſerved the Seed-cods or ſeed Veſſels of Moſs to contain Seeds in them no leſs wonderful for the greatneſs of number than the ſmalneſs of bulk, which ſeed Veſſels when ripe, he preſſing them pretty hard, found that there was a ſmall duſt went out of them, which ſeemed to vaniſh into the Air; preſſing and ſqueezing others of them upon a black plate, and examining the Powder with a Microſcope he found it to be a great heap of exceeding ſmall Seeds, globular and pretty tranſparent, ninety thouſand whereof extended in length take up no more room than the length of one ſingle Barly-corn or a quarter of an Inch. And twelve Millions of the ſame Seeds laid quadrangularly cover no more of a ſuperficies than one ſquare Inch. And 1382400000, weighing only one grain. Eighty of theſe ſuperficies of Seeds, make but

Hooks Lampas.

but the thickneſs of a piece of fine Paper, ſo that they be laid in a trigonal order, as moſt round bodies uſually place themſelves, that is, the round part of the Seed bearing on the concave diſtance between the Seeds in the neather laying. For the truth of which Obſervations and narration the ſame Author appeals to your own ſenſe and reaſon in caſe you make uſe of thoſe Artificial helps he hath for that purpoſe. But his concluſion is ſomewhat doubtful that theſe Seeds being thus ſmall may be carryed in the Air from place to place, even to the tops of the higheſt Towers or places remote and be there ſown, from whence he ſuppoſeth proceeds the growth of Moſs, and doth not conſider that theſe Seeds being globular and tranſparent (an argument of their ſolidity and weightneſs) are as uncapable of being drawn up into the Air and carryed far as the Seeds of *Peaſe*, *Raddiſh*, *Purſlain*, *Thyme*, *Marjoram*, *&c.* For their ſmalneſs is rather an impediment to their tranſportation than a help, and we find that ſuch Seeds that have a Down or Hair with them are more uſually carried away with the moving Air, as thoſe of *Thiſtles*, *Lettuce*, *Carrots*, *&c.* than thoſe that

are more solid and naked. Nor needeth there any such help as that of seed, to beget Moss, for it may aswell naturally proceed from any place prone for it, as Plants of greater bulk, it being not unusual for *Oak*, *Beech*, *Holly*, *Birch* and such like to grow plentifully out of the ground where other Trees of another kind have been lately felled, from a natural inclination of the Earth, and not from Seeds brought thither by the Air; the Seeds of *Oak*, *Beech*, and *Holly*, being too big for that purpose. The same may be observed in ground inclinable to *Broom*, which being throughly eradicated and taken away and the ground plowed, sown and cleansed for several Years, yet laid up for some time will naturally yeild *Broom*: yet those Seeds uncapable of being carryed in the Air. Also if that be true that all Plants are procured of Seed, it may be question'd how so great a quantity of the *Erysimum* or *Irio* should be sown in the Ruins after the late great conflagration in *London*, where it was observed, that more of it grew there than was known to be in all *Europe* besides. This plentiful encrease of this plant which is not a denizen in *England*, and observed

Evelins Philo: Discourse of Earth.

not

not to grow plentifully any where but at *Naples*, and that in the time of *Fabius Colonna*, could not well be produced of seed, unless you will imagine that the seeds of most Plants pass with the Air over Sea and Land: but the great variety of spontaneous productions of the earth in different years, different seasons, and different ways of tilling the earth, and its various generations also of insects and small Animals, (although these also may be raised of seed and by propagation) is enough to convince the intelligent that moss may be a natural spontaneous production or excrescence out of Trees, Plants, Soil or any thing else capable to bear it, and that it may be occasioned by the defect of a liberal expence of the Sap or Juices another way.

Besides the ordinary ways of killing *Moles* with traps, you may in the Spring of the year when they are most busie and in their work, cast them out alive with a paddle staff made for that purpose, by standing very still whilst they work, for the least motion of the ground disturbs them, they having the want of their sight supplied in their hearing and feeling. They do much mischief in a Garden and the setting *Moles to destroy.*

of traps or digging them out doth also prejudice your Garden: Therefore the best way is, as soon as you perceive that they have made way into your Garden, and that they are retired (as in the latter part of the day they usually do) into the adjacent grounds where they lye more quiet and out of fear, open their common passages and smoke them well with brimstone, Rosin, Pitch or such like combustible matter, with *Onions*, *Garlick*, or such like mixed with it, and close up the holes or passages. This will deterr them from your Garden as I have tryed, and make them take to some other place, or you may take a dead *Mole* and lay in the haunt, and that will operate the same effect.

Caterpillers to destroy them.

To prevent the encreases of *Caterpillers* where you find any of their *Puckets* which adhere to the twigs of Trees, in which they lay their eggs all the Winter, (as Silkworms do in their bags) take them off and burn them, for the approaching Sun in the Spring gives life to those pernicious Animals who multiply exceedingly.

But if the year be dry and prone to the generation of Insects, these vermine are apt to be bred in abundance on *Cabbages*, *Cauliflowers*, *&c.* which to prevent, there

is

is nothing so effectual as watring, for in dripping years they are not so apt to breed as in dry.

To destroy *Caterpillers* on Trees, it is said that if you make a Ring of Tar towards the bottom of your Tree, then hang a bag full of *Pismires* on the Tree that they may easily get out, and when they cannot get down by reason of the Tar, rather than they will starve for hunger, they will eat up all the Caterpillars: which if true it is like the falling upon *Scylla* to avoid *Charibdis*. *An ingenious way to destroy them.*

Several sorts of Flowers are apt to turn white by long standing, or removing into bad ground, as red and purple *Primroses*, *Blew Violets*, *Sweet Williams*, *Gilliflowers*, *&c.* which proceedeth from scarcity of nourishment, there requiring good nourishment to maintain the dark colours, as in Tulips the best and lightest colours are preserved by the more barren earth, when a rich Soil turneth them to a plain dark colour. But always observe, that change of soil preserves variety of colours, so that it be to the degrees of fatter or leaner as you would have your Flowers incline to darker or lighter colours. *Running of Colours.*

It is observed that there is more of white than

Of the variety of colours in Flowerrs.

than of any other colour in Flowers, and leaſt of green, that being the general colour, although in different ſhades, of all leaves of Plants, except ſome few rarities that are red or white leaved, as *red Sage*, *white Marjoram*, *Amaranthus*, and ſome variegated Plants. In Flowers from white there are all ſorts of ſhades, to the yellow, ſcarlet, and deepeſt red, and to the sky-colour and deepeſt blew with variety of mixtures: it is very rare to ſee a Plant green, yet there are ſuch, as the Roſe Plantain being only a Tuft of green Leaves, and the green Primroſe hath perfectly green leaves in form of a Flower, but mix'd with purple or white leaves. The common Parrot Tulip hath a mixture of Green in the Flower, but it ſeems to be an imperfection in it, yet it conſtantly bloſſoms alike. Black is not unuſually found in the bottoms of *Tulips* and *Anemones*, but no Flower is known to have a black leaf, ſave only the *Bull Iris*.

Of Sympathy and Antipathy of Plants.

There is a ſympathy and antipathy in Plants. And many fabulous traditions there are concerning them, bnt this is certainly obſerved that ſome Trees will not thrive under the ſhade or drip of another, as the drip of a Walnut Tree and of a Cherry Tree

Tree are injurious to other Trees, becauſe the leaf is bitter, and the drip deſtroyeth ſuch Trees or Plants that are under it. The like doth the drip of the leaves of the *Artichoke*, and of *Hemp*, which deſtroyeth all other vegetables near it, thoſe grounds being free from weeds where they grow, from that cauſe. Some plants will not thrive near others, becauſe they draw alike nouriſhment, and ſo rob or deprive one another, as Strawberries and Flowers with fibrous Roots, will not thrive together; but Plants that draw contrary noutrary nouriſhment, will proſper very well near together, as *Rue* and *Lettuce* together, *Onions* and *Savory*, or *Lettuce*, or *Purſlain*, will grow very near and kindly together.

Perception in Plants.

There are very ſtrange natures in ſeveral plants, that are not by every one obſerved, which is a kind of perception in them tending themſelves to that which nouriſheth and preſerves them, and eſchewing and avoyding that which injureth them. As a *Cucumber* is obſerved to grow towards Water more than otherwiſe it would do in caſe no water were placed neer it: we may conſtantly obſerve the natural inclination of the *Hop*, the

French

French Bean or *Kidney bean*, and *the Periploca* to a *Pole* or *Stick* and how they twiſt about them, and how ill they thrive without ſuch helps. It is certain that they have ſome perception of ſuch pole, for you ſhall eaſily perceive their tender Buds to bend towards it and at the leaſt touch of it to twiſt about it. After the ſame manner doth the *Indian Jaſſemine* or *Mexican Creeper*, and the *Ivy* tend towards a Wall or Tree and adhere to it, with love and delight. Several Fruit Trees alſo will flouriſh better againſt a Wall than ſingle, not becauſe of the warmth or ſupport only, but their affection to a Wall; as the *Curran Tree* will grow much fairer and bear better Fruit againſt a Wall than any other way ſupported, although on the North ſide of a Wall; the like is obſerved of ſome other Fruits, as *Plumbs*, *Filberds*, *&c.* The Roots of ſome Trees will run far towards any rich fat or moiſt place, it exciting ſuch Roots which have a natural perception which way the beſt nouriſhment is to be obtained. Several Plants will alſo avoid that which they delight not in, as moſt Trees yield or recede from others that ſhade them, and many Plants planted neer a Wall or other fence decline it and

lean

lean towards the more open Air, be it towards what coast it wil. The turning of a Flower towards the Sun or opening when the Sun appears may be caused from the warmth it receives from it, and the blossoming of the greater *Convolvulus* in the Evening may be caused from cool moist Air at that time, the Flower being so tender that it withereth at the next approach of the Sun. But the inclination of a Plant to, and aversion from any thing, must be caused from a perception in that Plant, of that in which it delights or which it abhors.

FINIS.

By reason of the Authors long distance from the Press, faults have happened in the printing, the principal whereof the Reader is desired to amend as followeth. Now amended.

PAge 8. line, 4. read *prefer'd* p. 20. l. 20. r. *from your house adorn'd with the choicest* p. 23. l. 13. dele *Because, and all the rest of that Paragraph.* p. eadem. l. 29. r. *with long dung.* p. 26. l. 14. and 17. r. *Battell.* p. 28. l. 10. r. *inches* p. 32. l. 8. r. *Walks.* p. eadem l. 19. r. *Walli* p. 36. l. 1. r. *Oblectations.* p. 75. 80. 81. 90. r. *Alatarnus* in loco *Maternus.* p. 94. l. 10. r. *not to have been in England above one hundred Years.* p. 132. l. 15. r. *transplantation.* p. 158. l. 7. r. *highly.* p. 160. l. 13 r. *borders.* p. 182. l. 4. r. *buds.* p. 186. l. 26. r. *raw.* p. 244. l. 28. dele *that.* p. 262. l. 28. r. *imitate* p. 267. l. 20. r. *the Spring.*

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